# 2003 CDRB Annual Report

# State Child Death Review Board of Kansas

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# KS Attorney General Phill Kline

September 2005

Dear Fellow Kansan:

The State Child Death Review Board was established by the Kansas Legislature in 1992 to help us learn more about child mortality. When a child dies, everyone in a community is affected. That is why the state of Kansas has been fortunate to have a dedicated, all-volunteer board of professionals to review child fatalities. With the information collected annually by the board, we can learn more through studying trends in child deaths and use what we learn to formulate strategies to help reduce the occurrence of further child deaths.

This year's report comprehensively addresses data from the year 2003 and highlights many of the Board's findings for the nine-year period from 1994 to 2003. The board presents its recommendations and addresses many of the most important issues facing child health and safety.

By reviewing this year's report, I hope we can all learn more about ways to protect our state's most treasured asset, our children.

Sincerely,

Phill Kline
Kansas Attorney General

# Board Members

**Attorney General appointee**
Kevin Graham, J.D., Chairperson
Assistant Attorney General, Topeka

**Director of Kansas Bureau of Investigation appointee**
David Klamm
KBI Senior Special Agent, Wichita

**Secretary of Social and Rehabilitation Services appointee**
Paula Ellis, MSW
SRS Assistant Director of Child Welfare, Topeka

**Secretary of Health and Environment appointee**
Lorne A. Phillips, Ph.D.
State Registrar, Topeka

**Commissioner of Education appointee**
Sarah Johnston, M.D.
USD 490 Board of Education, El Dorado
University of Kansas School of Medicine, Wichita

**State Board of Healing Arts appointees**
Erik K. Mitchell, M.D. (Coroner member)
District Coroner, Topeka

Jaime Oeberst, M.D. (Pathologist member)
Deputy Coroner, Wichita

Katherine J. Melhorn, M.D. (Pediatrician member)
Associate Clinical Professor, Pediatrics
University of Kansas School of Medicine, Wichita

**Attorney General appointee to represent advocacy groups**
Mary A. McDonald, J.D.
Assistant City Attorney
Wichita City Prosecutor's Office, Wichita

**Kansas County and District Attorneys Association appointee**
Keith Schroeder, J.D.
Reno County District Attorney, Hutchinson

**Staff**

Wayne Stith
Executive Director

Courtney Canfield
Research Analyst

**Counsel**

Laura Graham
Assistant Attorney General

# Acknowledgements

The review of each child's death in Kansas could not be accomplished without the invaluable commitment of many people across the state. The State Child Death Review Board (SCDRB) remains grateful for the significant contributions of the Office of Attorney General Phill Kline, county coroners, law enforcement agencies, the Department of Social and Rehabilitation Services (SRS), the Kansas Department of Health and Environment (KDHE), physicians, hospitals, child advocates, county and district attorneys, and all others who offer their assistance in supplying the information necessary for our review.

As a multi-disciplinary, multi-agency board we enjoy the support of our employers who allow us the time necessary to fulfill our responsibilities as board members.

Finally, the SCDRB would like to recognize and express its gratitude to the agencies providing the grants that help us continue this important mission. This publication is funded by the Children's Justice Act Grant through the Department of Social and Rehabilitative Services. Additional funding was provided by the Kansas Health Foundation, Wichita, Kansas. The Kansas Health Foundation is a philanthropic organization whose mission is to improve the health of all Kansans.

# Table of Contents

# I. Executive Summary

The State Child Death Review Board (SCDRB) was created in 1992 as a multi-disciplinary, multi-agency panel to review child deaths in Kansas. The SCDRB has the statutory obligation to review the death of every child that is a Kansas resident or dies in the State of Kansas. This review process is not duplicated by any other state entity. The SCDRB has completed its review of the cases in 2003, and this report presents the Board's findings.

2003 parallels previous years and the comprehensive numbers (1994 to 2003) very closely. While the total number of deaths was slightly down from previous years, 2003 was consistent with trends noted since the SCDRB began reviewing deaths in 1994. 470 Kansas children died in 2003.

The Board categorizes deaths as: Natural-Except Sudden Infant Death Syndrome (SIDS), Unintentional Injuries, Natural-SIDS, Homicides, Suicides and Undetermined deaths. As in the past, Natural death is the largest category (61%), with children under one year making up the majority (57%) of those deaths.

The next largest category is Unintentional Injury (24% of deaths), of which most (58%) were Vehicular. The most represented age group in motor vehicle deaths was 15-17 year-olds (58%). And, as in every year past, the majority (61%) of children dying in motor vehicle accidents were not properly restrained or using appropriate safety restraints.

Both Homicides and Suicides were slightly down from 2002. Suicides went from 12 in 2002 to 11 in 2003. This equals the lowest level of suicides in ten years. The total number of homicides dropped from 15 to 13. However, Homicides classified as Child Abuse rose from seven to nine.

In 2003 there were 17 Undetermined deaths. This highlights the Board's recommendation to all entities involved in child deaths to work for more thorough and complete death investigations. Often the Undetermined classification is the result of a lack of thorough and comprehensive investigations, leaving the board with inadequate information upon which to make a determination of cause or manner of death.

As was with last year, the main thrust of the Board's policy recommendations this year is on motor vehicle deaths. These deaths are high, yet have some of the most easily implemented prevention policies. After a disappointing legislative session last year, the Board, once again, strongly encourages the members of the State Legislature to consider the safety of their young constituents and implement stricter and more effective child seatbelt laws and a stronger graduated drivers license law.

# II. 2003 Overview

The SCDRB reviewed 470 deaths for calendar year 2003. The U.S. Census Bureau estimated the 2003 Kansas population under 18 to be 684,212. This gives Kansas a rate of 69 child deaths per 100,000 children for 2003. Since the Board began its reviews, Natural and Unintentional Injury have been the two leading manners of death and 2003 was no exception.

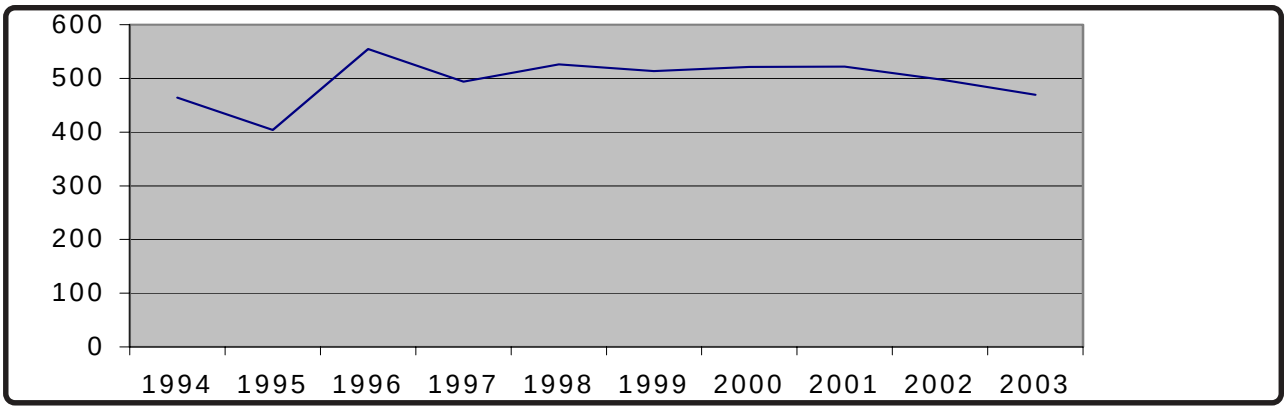
The Board categorizes deaths into six different Manners of Death.

- Natural-Except Sudden Infant Death Syndrome (SIDS) - deaths brought about by natural causes such as disease, congenital conditions and prematurity.
- Unintentional Injury - deaths caused by incidents such as motor vehicle crashes, drownings or fires, which were not intentionally caused.
- Natural-SIDS - children who die before the age of one and display no discoverable cause of death. Kansas statute requires that an investigation and an autopsy be performed before this classification can be applied.
- Undetermined deaths - cases in which the manner of death could not be positively identified from the evidence collected.
- Homicides, which include Child Abuse Homicides.
- Suicides

The following graphs compare 2003 with the total numbers from 1994 (the first year reviewed by the Board) through 2003. In all three important aspects (manner of death, age and gender) the graphs are remarkably similar.

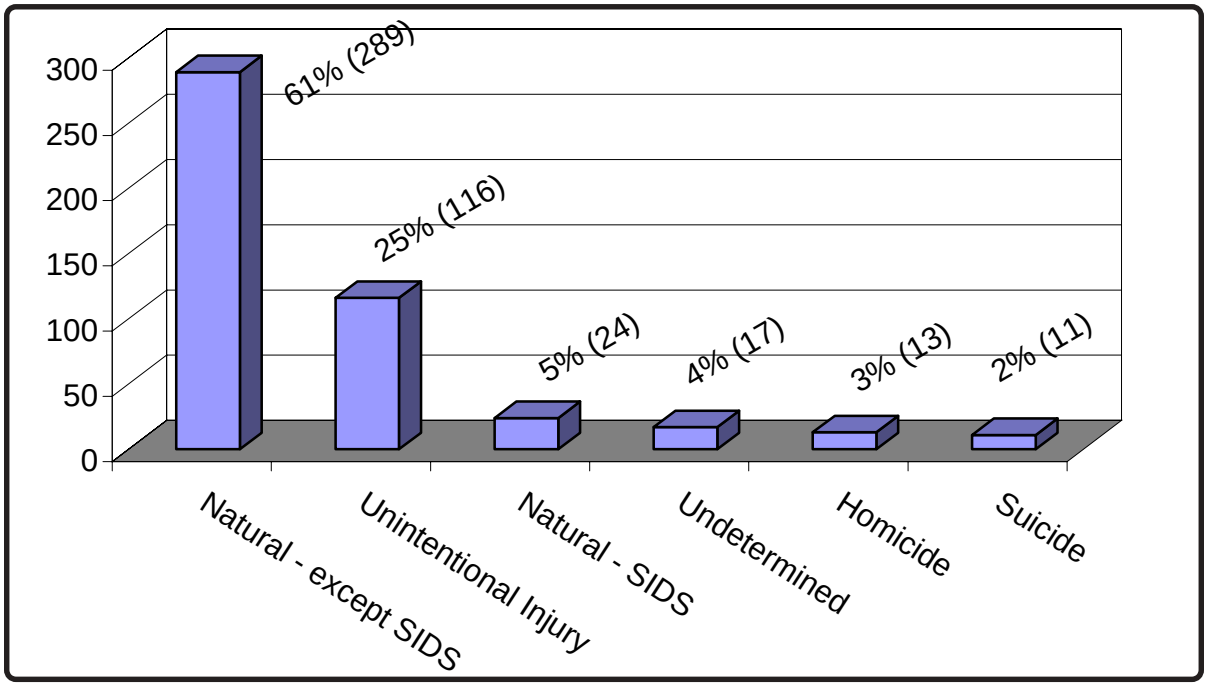
Kansas has a demonstrable theme to its child deaths. The most telling point is that there have been no significant decreases in the number of fatalities. This consistency has troubling implications. Despite better and more complete information, associated prevention policies and strategies have not taken effect. Natural and SIDS deaths, the majority of which are babies one year and younger, generally rely on medical advances more than policy change for prevention. Methods of lowering death rates for Homicide and Suicide can be complex, with varying degrees of effectiveness. However, the second-largest category, Unintentional Injury, has some easily identifiable and simple prevention points. These will be addressed in the Board's recommendations at the end of the report.

**Total Deaths in Kansas, 1994 to 2003. N = 4,968**



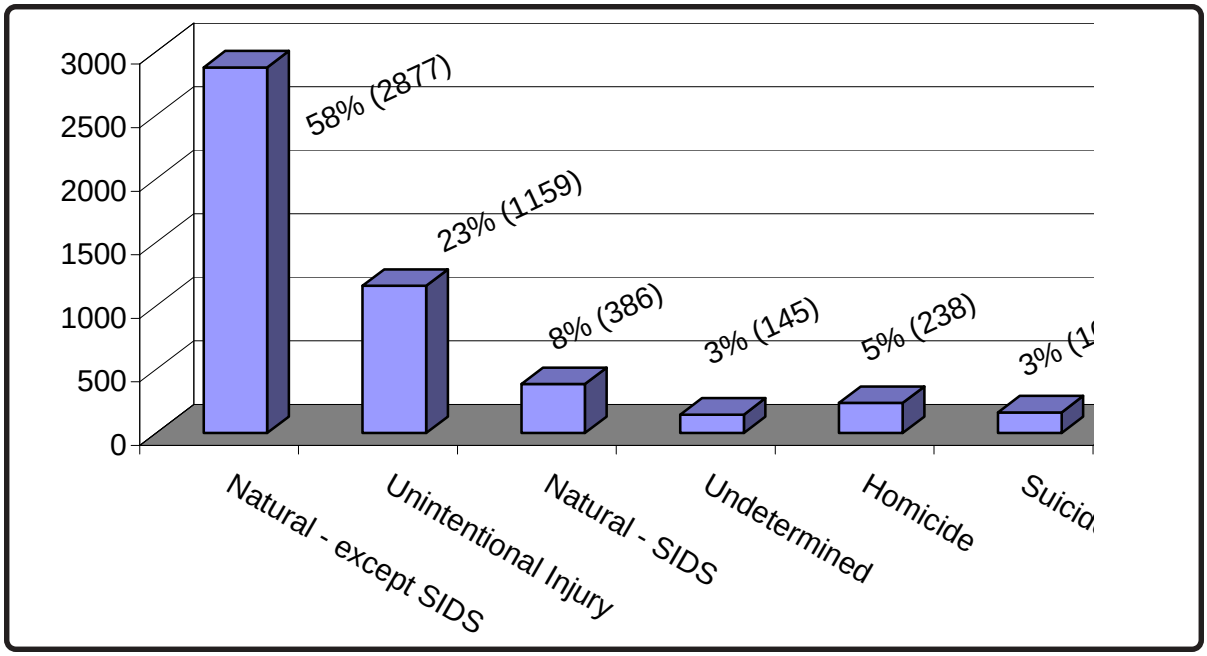
# II. 2003 Overview

**Analysis by Manner of Death in 2003. N = 470**



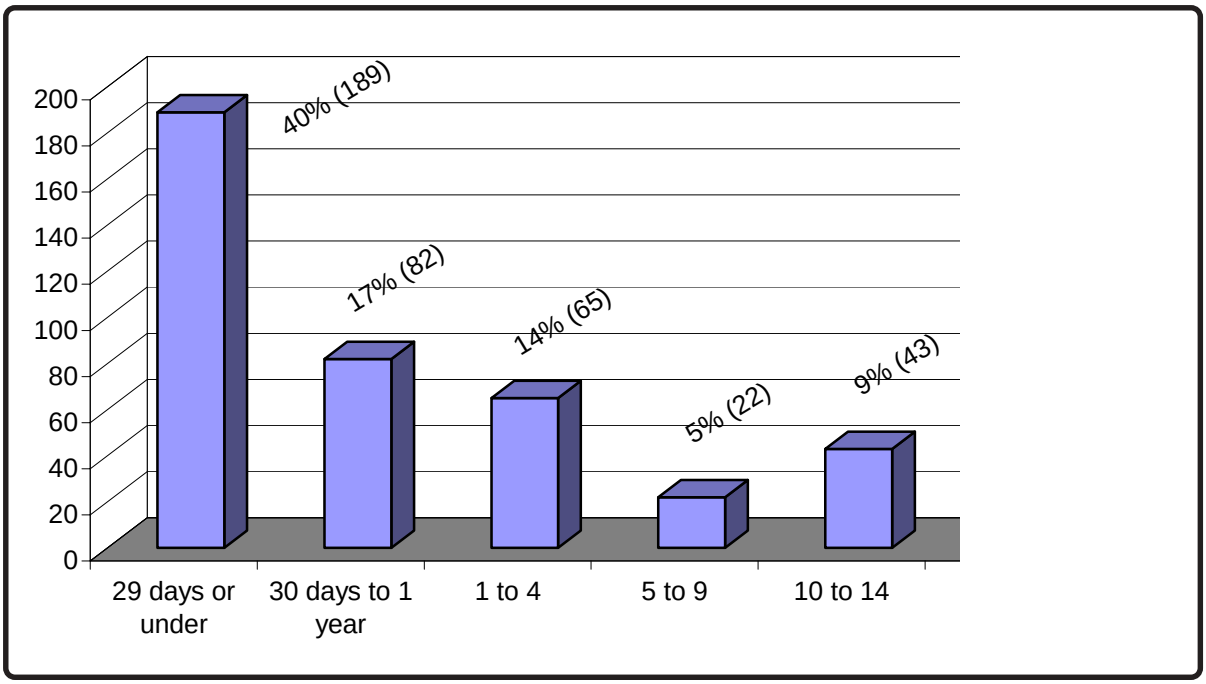

Note the similarity between 2003 and overall numbers in the percentages assigned to each manner of death.

**Analysis by Manner of Death, 1994 to 2003. N = 4,968**



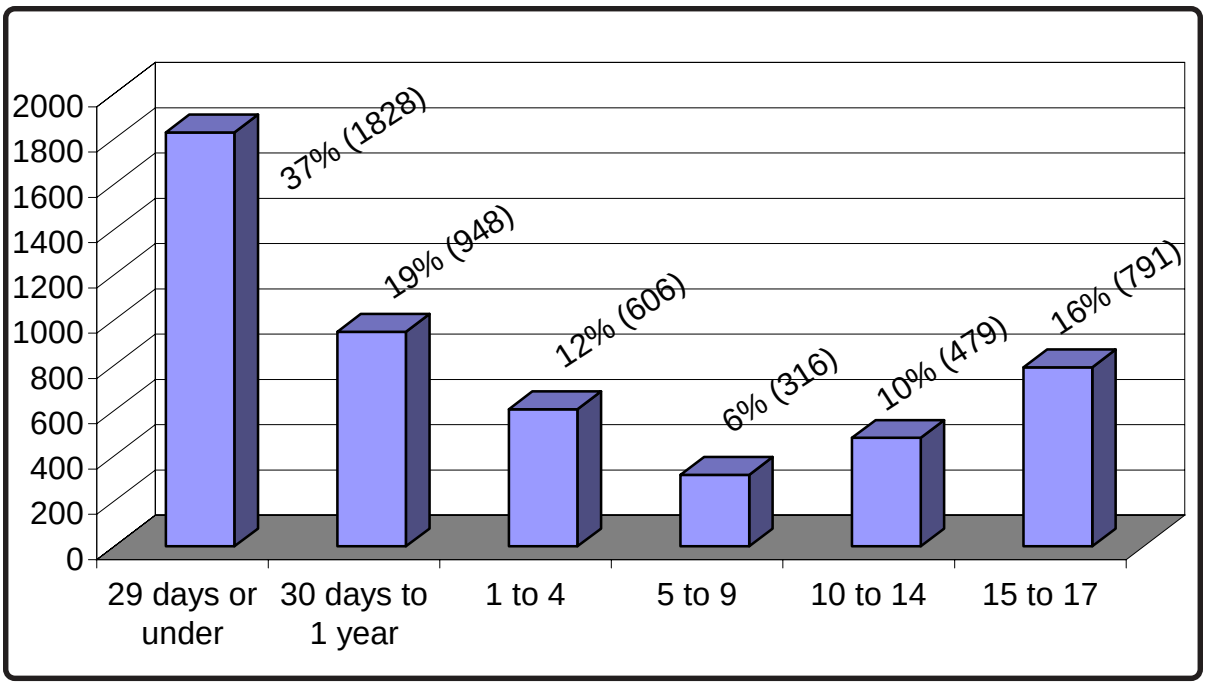
# II. 2003 Overview

**Analysis by Age in 2003. N = 470**



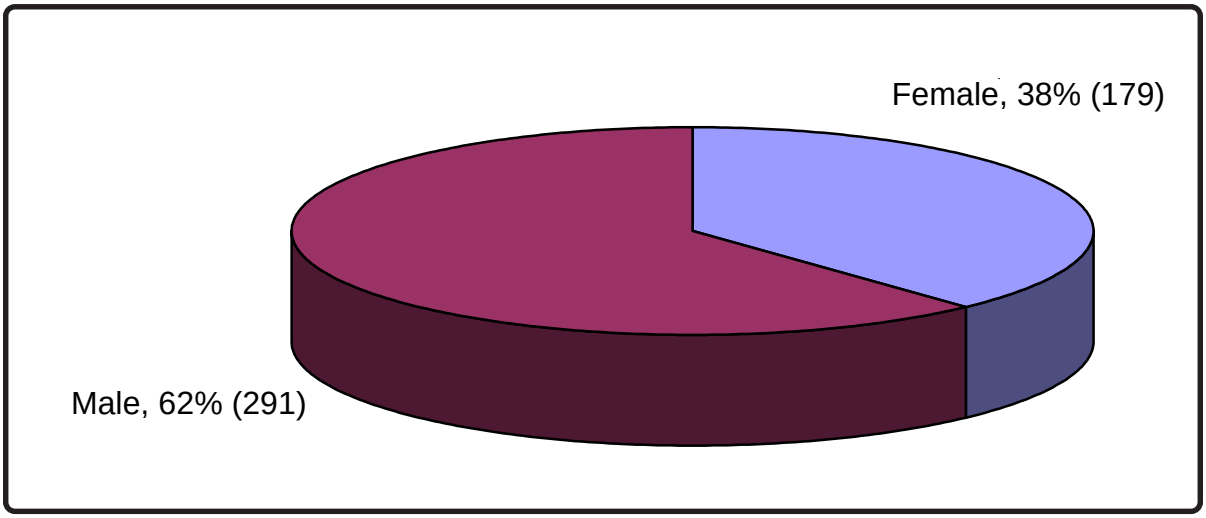

Again, the progression of total deaths by Age in 2003 and overall follows the same general distribution.

**Analysis by Age, 1994 to 2003. N = 4,968**



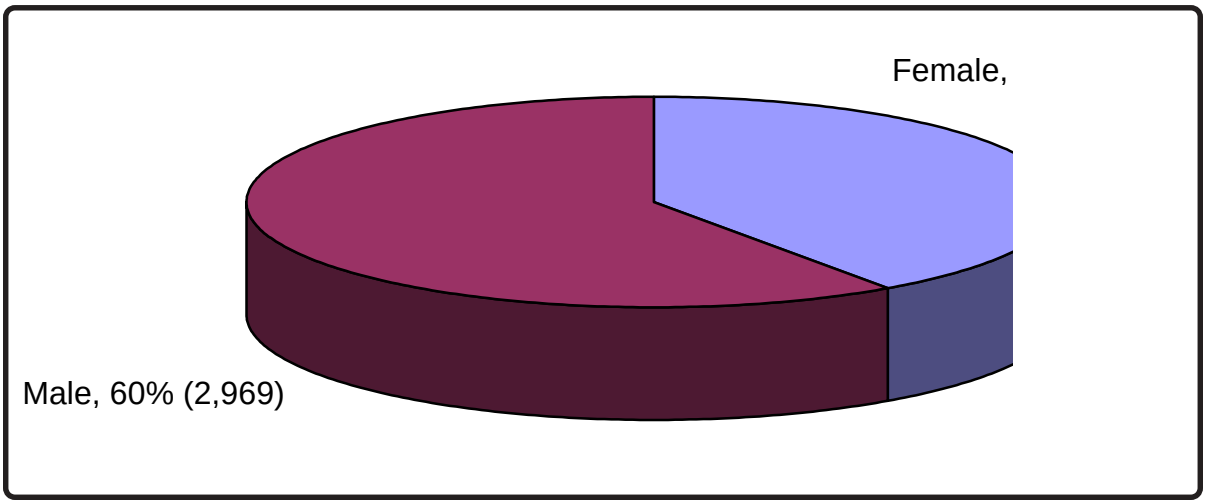
# II. 2002 Overview

**Analysis by Gender in 2003. N = 498**




Finally, gender trends also match closely. Males consistently make up a majority of the deaths, even though the total male to female population is roughly the same. (In 2003, ratio of males to females for children under 18 in Kansas, was 51% to 49%.)

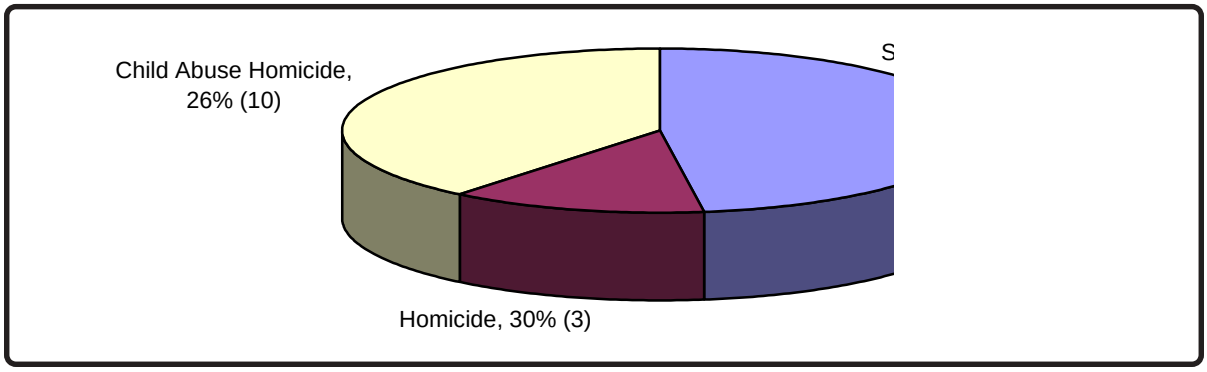
**Analysis by Gender, 1994 to 2003. N = 4,968**



# A. Violence-Related Deaths

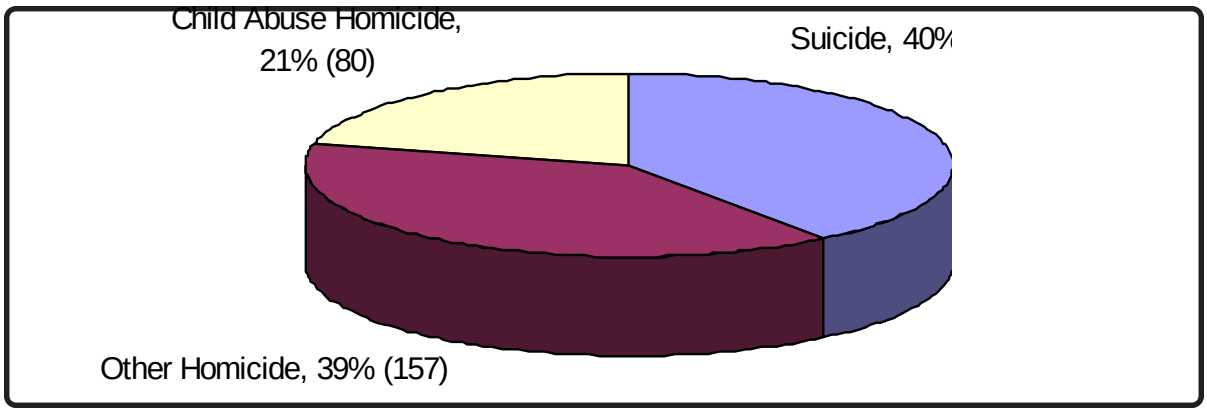
Violence-related deaths include Homicides, Child Abuse Homicides and Suicides. They are a small but relatively consistent part of total deaths, and many of them are preventable.

**Analysis by Type of Violent Death in 2003. N = 23**



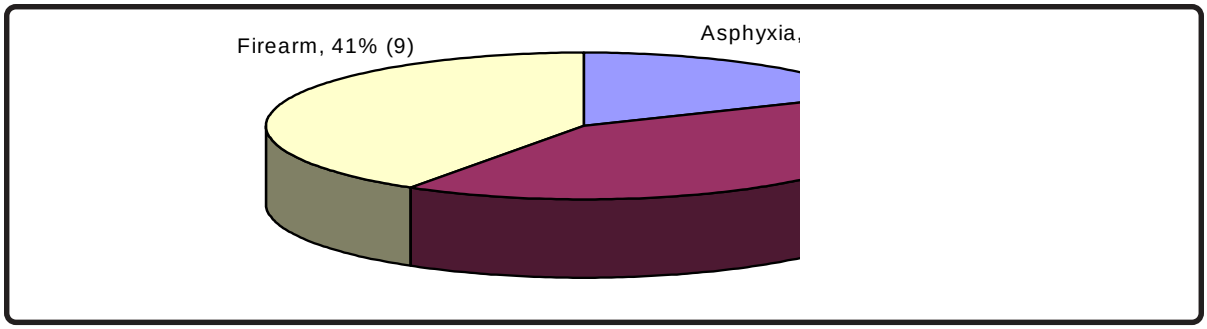

2003 was very similar to 2002 in that Homicides and Child Abuse Homicides were almost equal. Though total suicides were down, they made up a slightly larger portion of violent deaths than in the past.

**Analysis by Type of Violent Death, 1994 to 2003. N = 399**




Firearm was the most common cause of violent death in 2003.

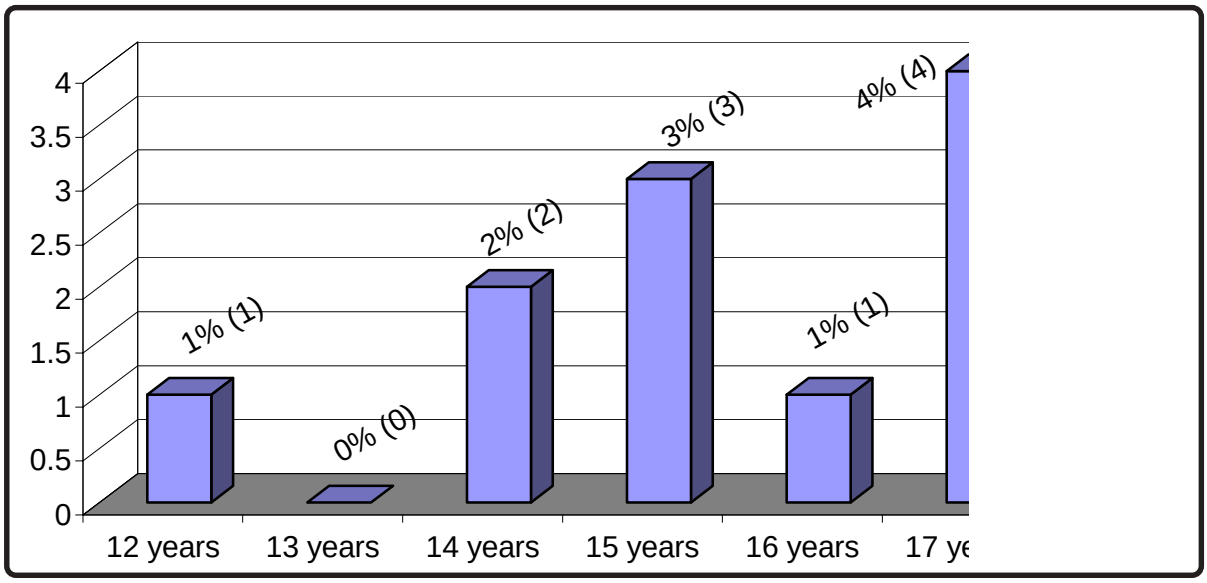
**Analysis by Method of Violent Death in 2003. N = 23**



# 1. Suicide

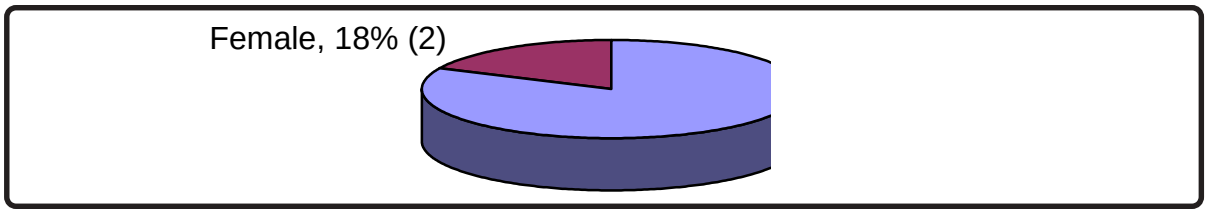
In 2003, 15 - 17 year-olds made up 63% of child suicides. Nationally, suicide is the third leading cause of death for individuals ages 15 through 24. This form of death routinely takes the lives of 10 to 25 Kansas children every year. **The Board considered eight of the twelve 2003 suicides to be potentially preventable.**

**Suicides by Age in 2003, N = 11**



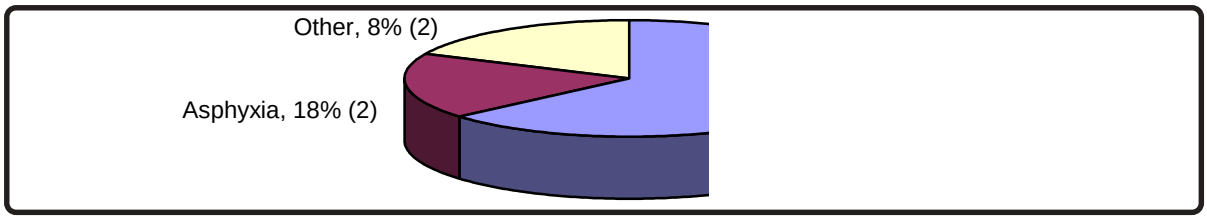

Once again, 2003 continued the Kansas and national trend of males making up the majority of total and adolescent suicides.

**Suicides by Gender in 2003, N = 11**



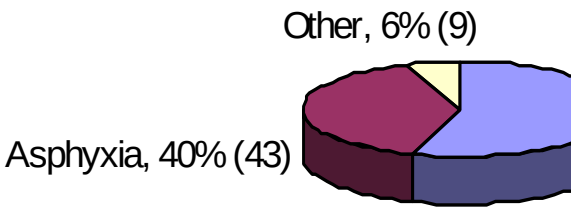

2003 showed a return to firearms as being the preferred method for suicide. This differs from 2002 in which asphyxia was the preferred method.

**Suicides by Method in 2003, N = 11**



# 1. Suicide

**Suicides by Method, 1994 - 2003, N = 162**



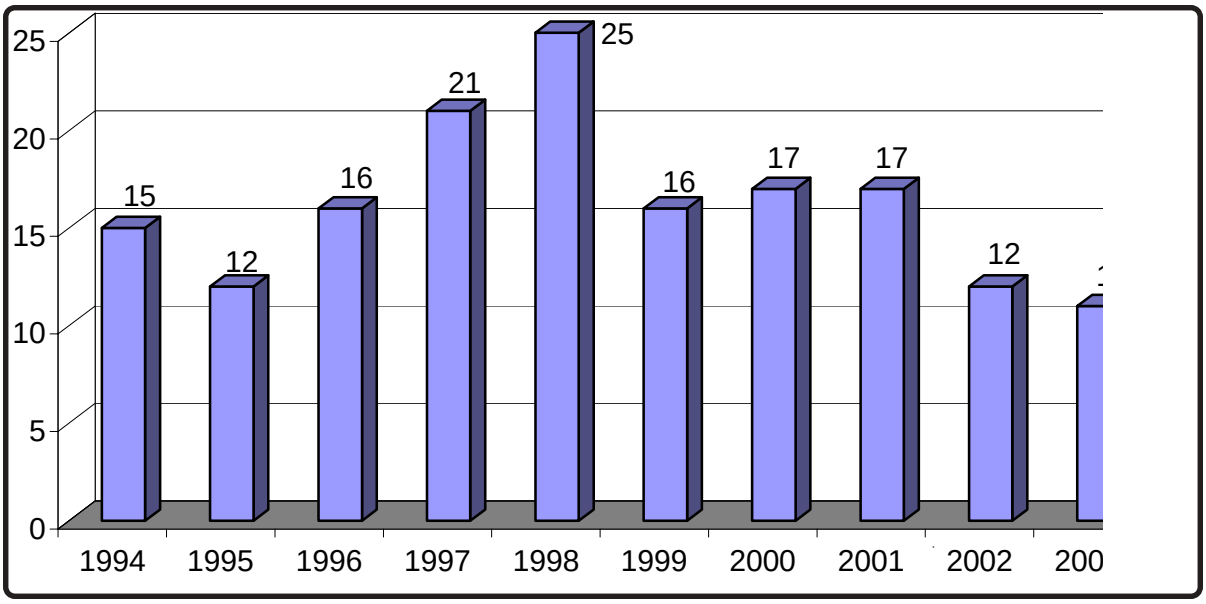

Suicide is a difficult issue, devastating and confusing to the family and community. While it can be a painful process, thorough investigations of suicide are necessary to develop as much information as possible, in hopes of increasing and improving prevention strategies. Often the Board reviews suicides and finds that the family has not been thoroughly interviewed, or autopsies have not been performed to have a complete medical picture of the youth at his or her death. The desire of families and communities to put such tragedies behind them is understandable; however, it hinders efforts to prevent further deaths of Kansas children.

A 17-year-old shot himself in the head. The death was inadequately investigated. The pathologist's autopsy report provided what little information was availalable. The investigation was limited to the apparent facts and prevented a thorough understanding of the circumstances that led to this tragedy.

Thankfully, in 2003 suicides equaled their lowest level since the Board began reviewing cases in 1994. However, there are no obvious indications as to why 2003 saw fewer suicides than previous years. Kansas has a small enough number of suicides that the reduced numbers might be a statistical shift that is not tied to an actual, downward trend.

# 1. Suicide

**Total Suicides by Year, 1994 - 2003, N = 162**




## PREVENTION POINTS

- **Early diagnosis and treatment of mood disorders** - Early involvement of mental health professionals may prevent suicidal tendencies in troubled youths.
- **Evaluation of suicidal thinking** - Statements about suicide,even if they seem casual or joking should not be ingnored. The months following a suicide attempt or severe depression can be a time of increased risk, no matter how well the child seems to be doing.
- **Limiting access to lethal agents** - Easily obtained or improperly secured firearms or medications are often used in suicides. The harder it is for a child to put their hands on these items, the more likely they are to re-think their intentions or allow time for someone to intervene.
- **Talk about the issue** - Bringing up suicide does not "give kids the idea", but rather gives them the opportunity to discuss their thoughts and concerns. This communication can act as a significant deterrent.

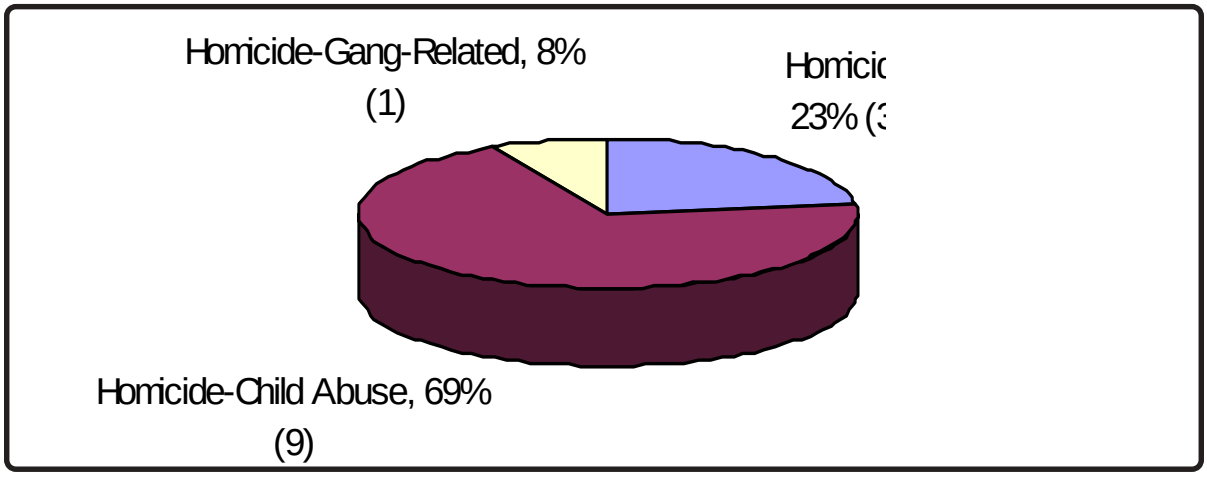
# 2. Homicide

**The Board reviewed 13 Homicides in 2003. All 13 Homicides were considered preventable.**

A 10-month-old infant was being cared for by a male relative. The infant was brought to the hospital unresponsive and was pronounced dead the next day. The infant was found to have evidence of abusive head trauma with bruising to the face. The relative claimed the injuries were sustained from a short fall that occured ten days earlier. The relative was charged with First Degree Felony Murder.

The Board defines Child Abuse Homicide as children killed by caretakers from abuse (inflicting injury with malicious intent, usually as a form of discipline or punishment) or neglect (failing to provide shelter, safety, supervision and nutritional needs). Board member Dr. Sarah Johnston identifies several child abuse risk factors and prevention points: "Maternal risk factors include young age, fewer than 12 years of education, late or no prenatal care, and being unmarried. Child risk factors include male gender and low birth weight. Household risk factors include prior substantiation of child abuse and neglect, substance abuse, low socioeconomic status, and presence in the household of an adult male not related to the child. The most effective methods for preventing child abuse involve programs which enhance parenting skills for at-risk parents. Examples of successful programs include home visits by nurses who provide coaching in parenting skills as well as quality early childhood programs which include parent training."

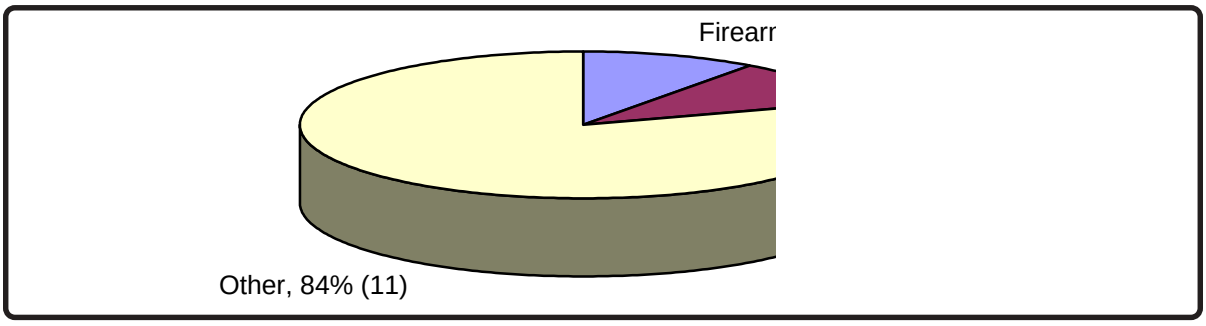
**Homicides Categories in 2003. N = 13**



# 2. Homicide

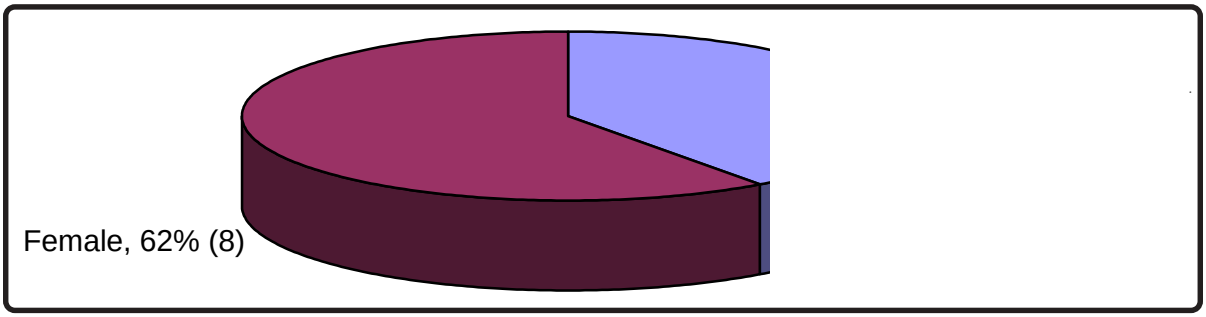
In 2003, "Other" methods made up 84% f of the Homicides. These included shaken baby syndrome, neglect and blunt trauma injuries.

**Total Homicide Deaths by Method in 2003, N = 13**




Females accounted for a larger amount of violent death, contrary to national trends and past Kansas numbers.

**Total Homicide Deaths by Gender in 2003, N = 13**



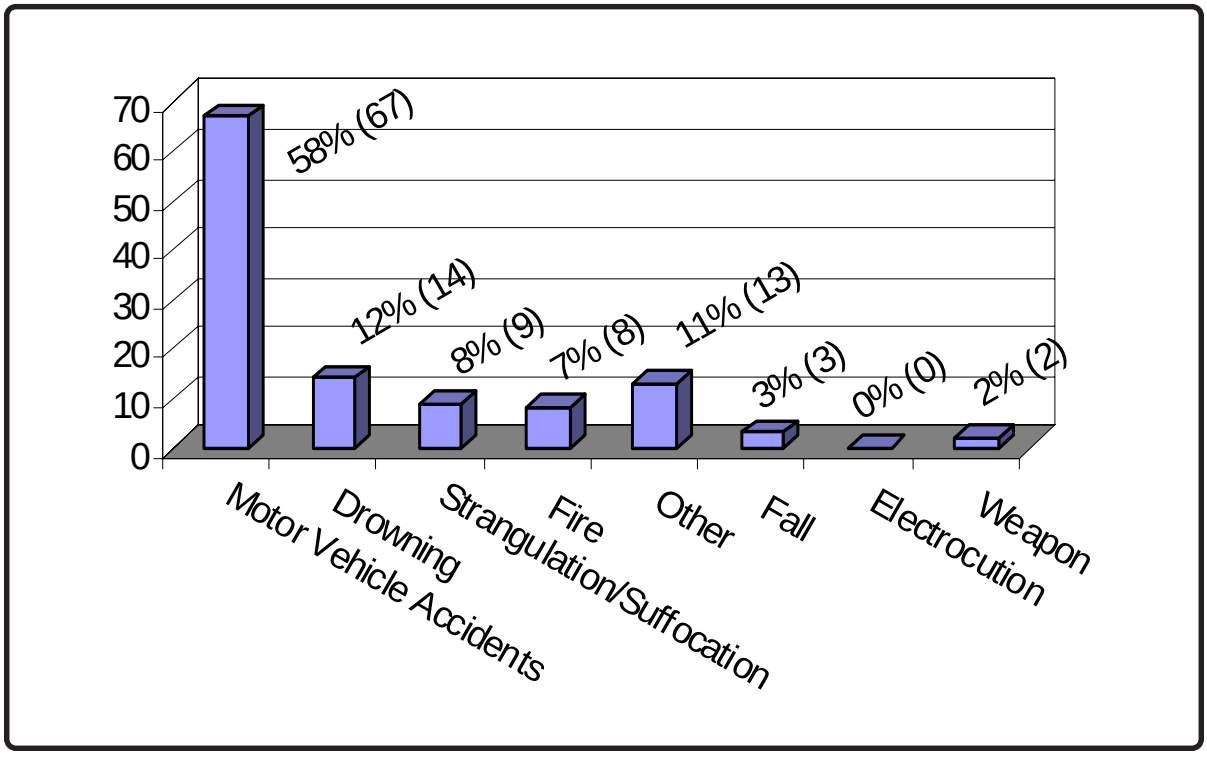

## PREVENTION POINTS

- **Family Violence** - Most homicides occur between family members, friends and neighbors. They happen when people lose their temper and take things too far. Many of the incidents the Board sees aren't cold, calculated acts. The killings generally occur in the midst of anger and frustration. Often if individuals could have restrained themselves for just a few minutes, the moment would pass and they would not have to live with the death of a child on their hands.
- **Taking Extra Care with Young Children** - Very young children are often the victims of Child Abuse Homicide. Frustrated caregivers, often without any parental training, combine unrealistic expectations for children's behavior with a lack of appreciation for their vulnerability. Abusive Head Trauma is an example of how an impact or violently shaking a baby can cause serious and fatal trauma to the child's brain.

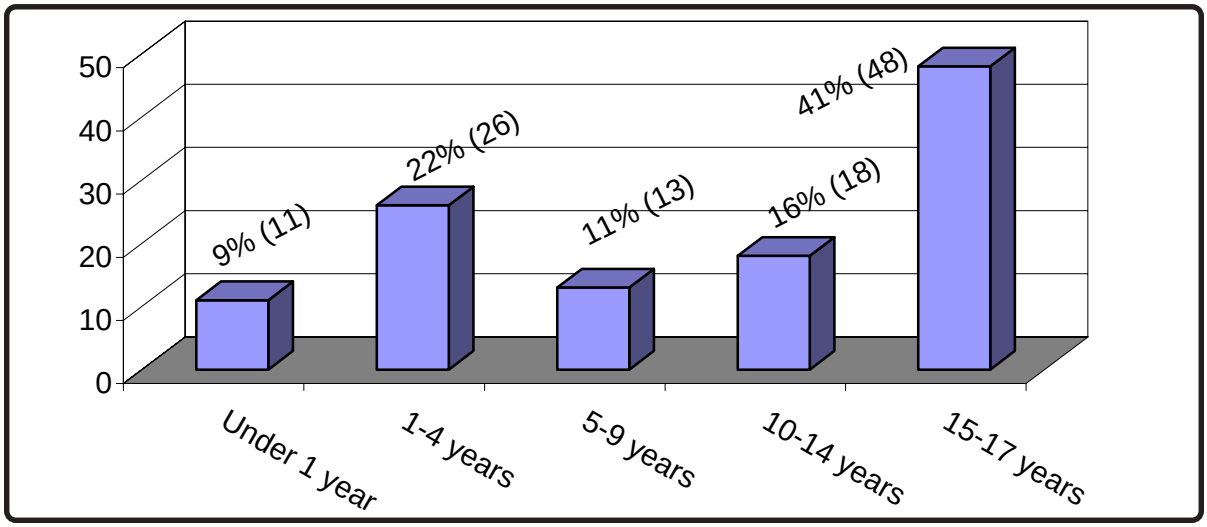
# B. Unintentional Injuries

Unintentional Injury is consistently the second-largest category of death. These deaths are often the most preventable. **The SCDRB found 113 of the 116 Unintentional Injury deaths to be preventable.** In line with Kansas and national trends, motor vehicle crashes continue to make up a significant number of Unintentional Injury deaths. 15-17 year-olds were the largest age group affected.

**Unintentional Deaths by Cause in 2003, N = 116**



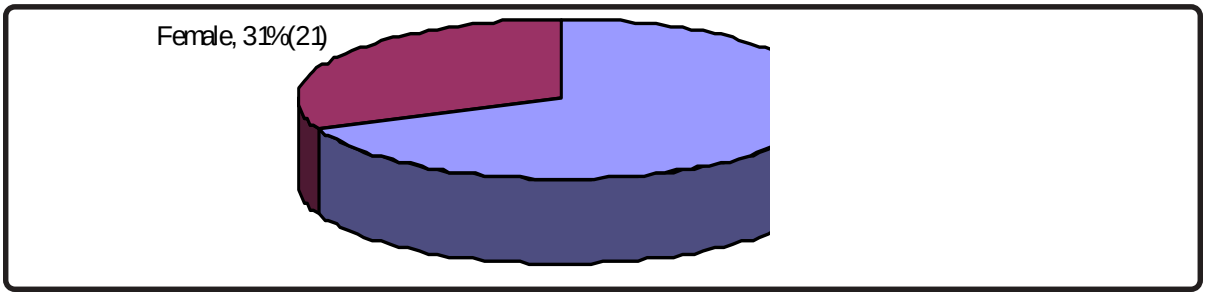

**Unintentional Deaths by Age in 2003, N = 116**



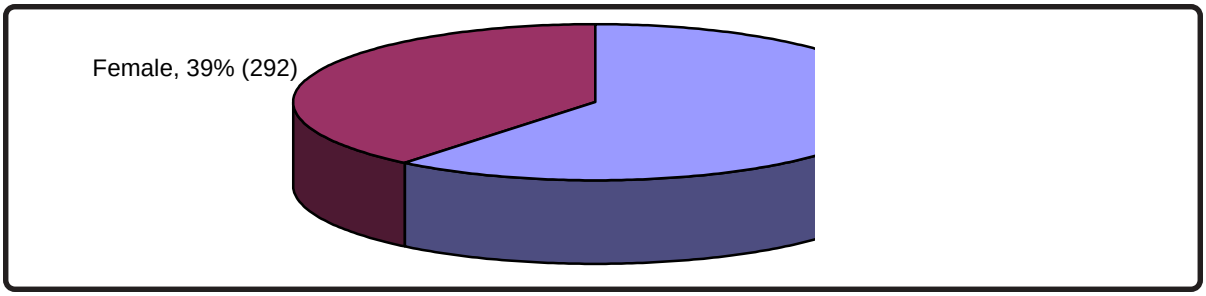
# 1. Motor Vehicle Deaths

Motor vehicle crashes are a major killer of Kansas youth. 14% of all child deaths in 2003 were attributed to MVCs. **The Board ruled 66 of the 67 motor vehicle deaths to be preventable**. Trends previously noted by the Board in regards to motor vehicle deaths continued in 2003. Males make up more than two-thirds of the deaths and 15 to 17 year-olds are the largest age group. Drivers are a consistently large portion of the deaths, and in an overwhelming number of the cases, appropriate safety restraints were not used.

**MV Deaths by Gender in 2003, N = 67**




**MV Deaths by Gender, 1994 - 2003, N = 747**

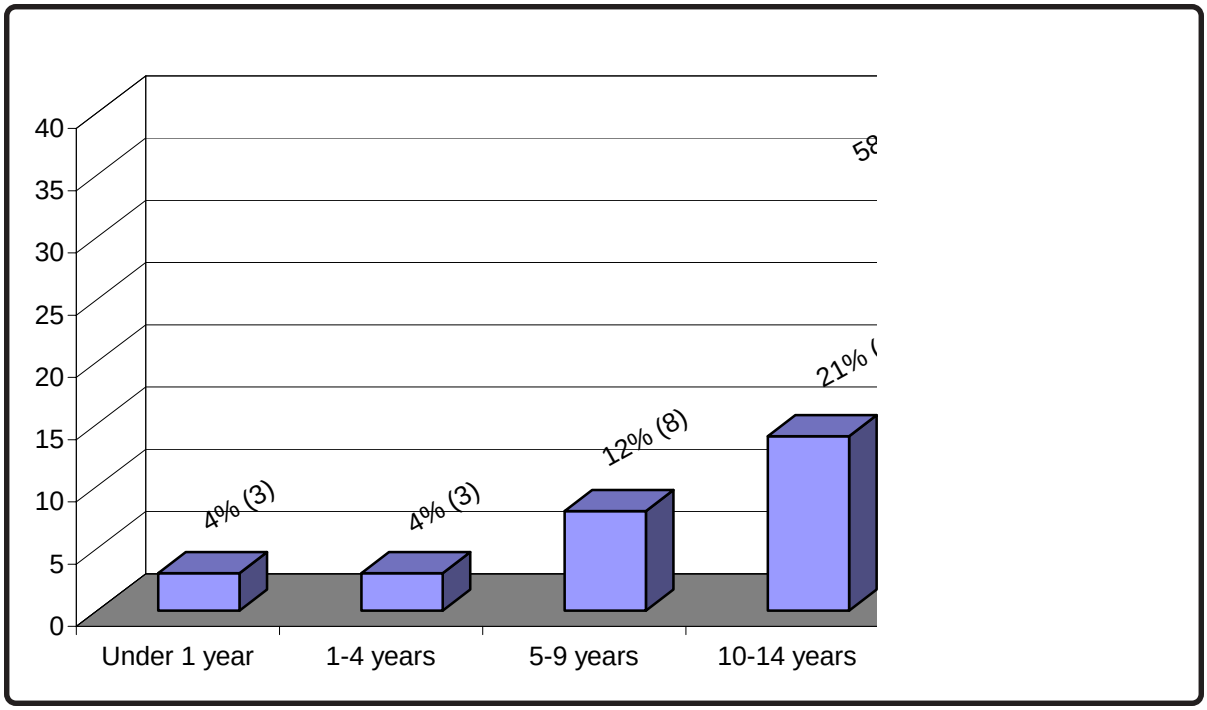



A car driven by a 15-year-old with a 16-year-old passenger stopped at a highway intersection.The car pulled out in front of a semi. The semi hit the car on the passenger side and pushed the car 50-75 feet. Neither the driver nor passenger girl were restrained and both died. The driver was in violation of license restrictions.

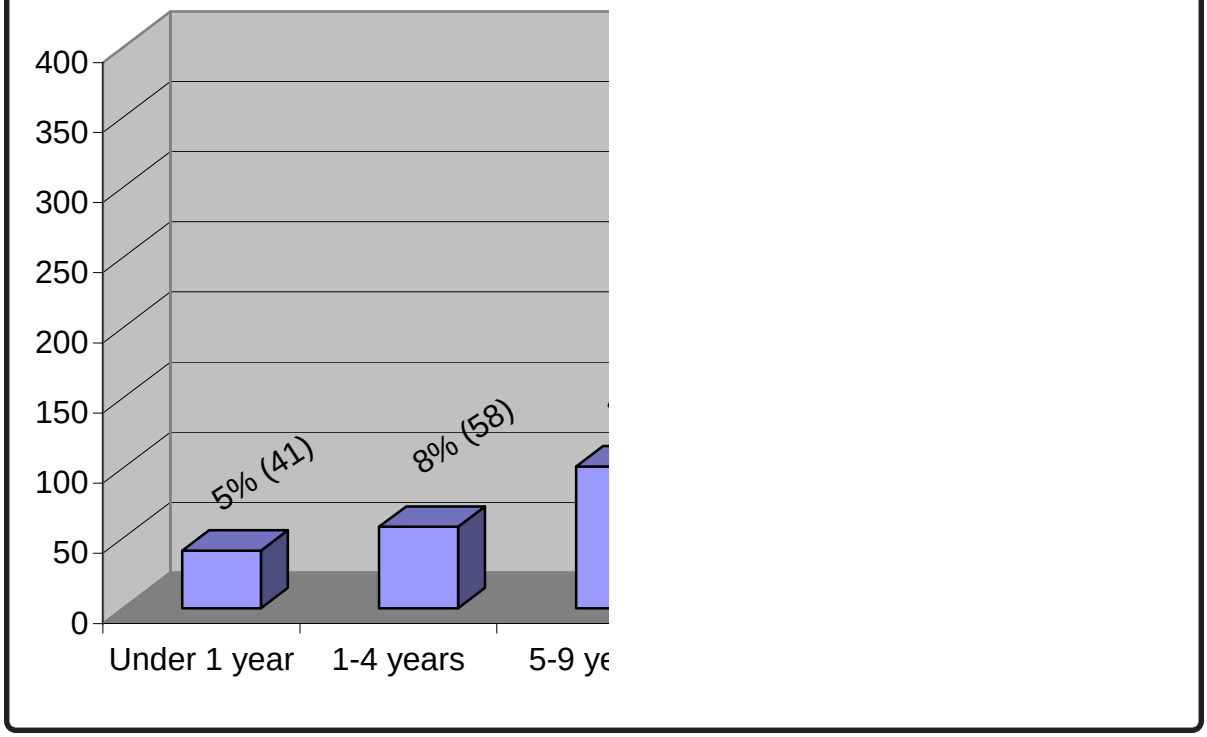
The following graphs emphasize the recommendation at the end of this report urging implementation of a stronger Graduated Drivers License program. Young teenagers experience the greatest number of motor vehicle deaths. They are often the driver or a passenger riding with other teen drivers. Currently, Kansas children may begin driving at age 14. The law supported by the SCDRB would begin restricted, supervised driving at age 16.

# 1. Motor Vehicle Deaths

**MV Deaths by Age in 2003, N = 67**




**MV Deaths by Age, 1994 to 2003, N = 747**



# 1. Motor Vehicle Deaths

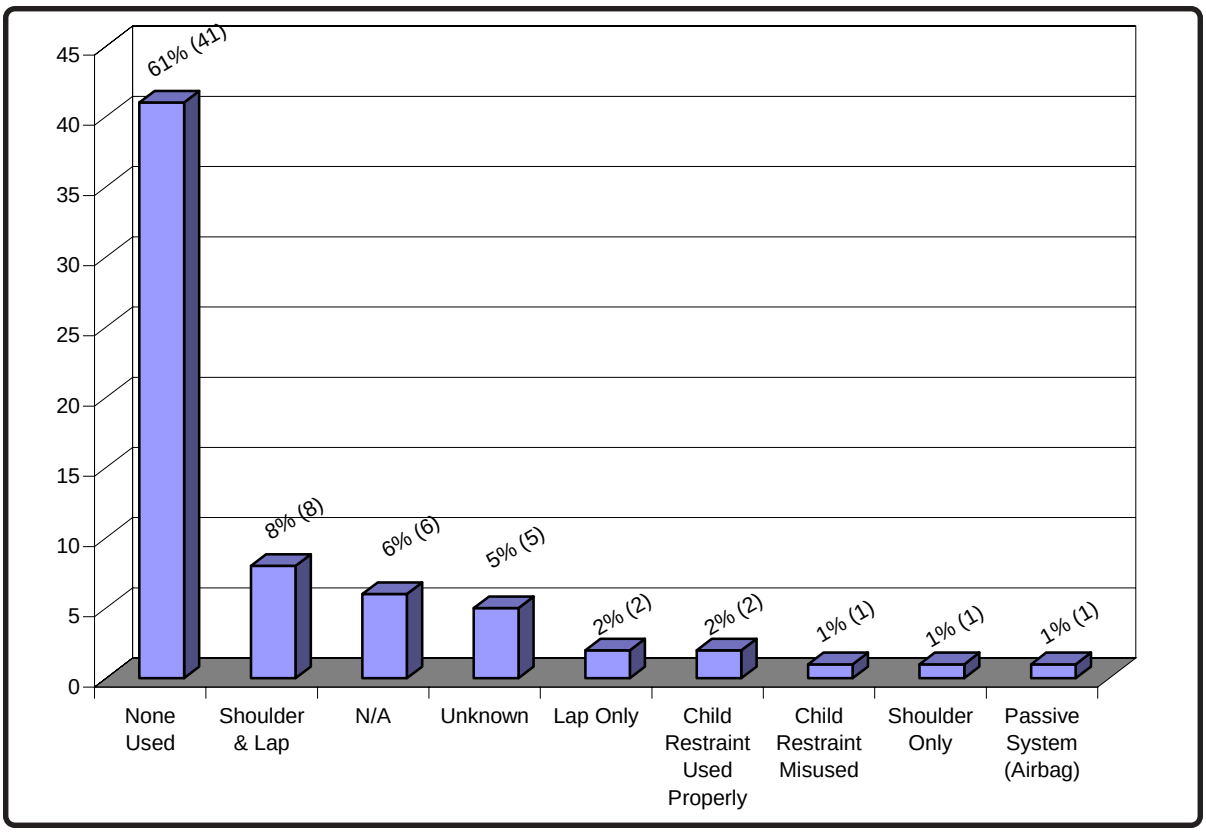
In case after case of motor vehicle deaths, the Board sees the words “unrestrained” and “ejected” before a description of fatal injuries. **In 60% of the 67 motor vehicle deaths, seatbelts or age appropriate restraints were not used at all.**

> A 17-year-old female was the unrestrained front seat passenger in a car traveling at a high rate of speed (90 to over 100 mph according to investigation and witnesses) when the driver swerved to miss debris on the roadway. The driver lost control and the vehicle rolled several times. The decedant was unresponsive, but breathing at the scene and was airlifted to the hospital where she died the following day.

Most children not using their seatbelts are ages 15-17, with 39 instances of non-restraint. The next highest group is children 10-14 at 14 instances. This once again illustrates the need for Kansas to enhance seatbelt laws and their enforcement. However, there are instances when younger children were not properly restrained by their caregivers. Eight children under age 10 were not using an age appropriate restraint when they died.

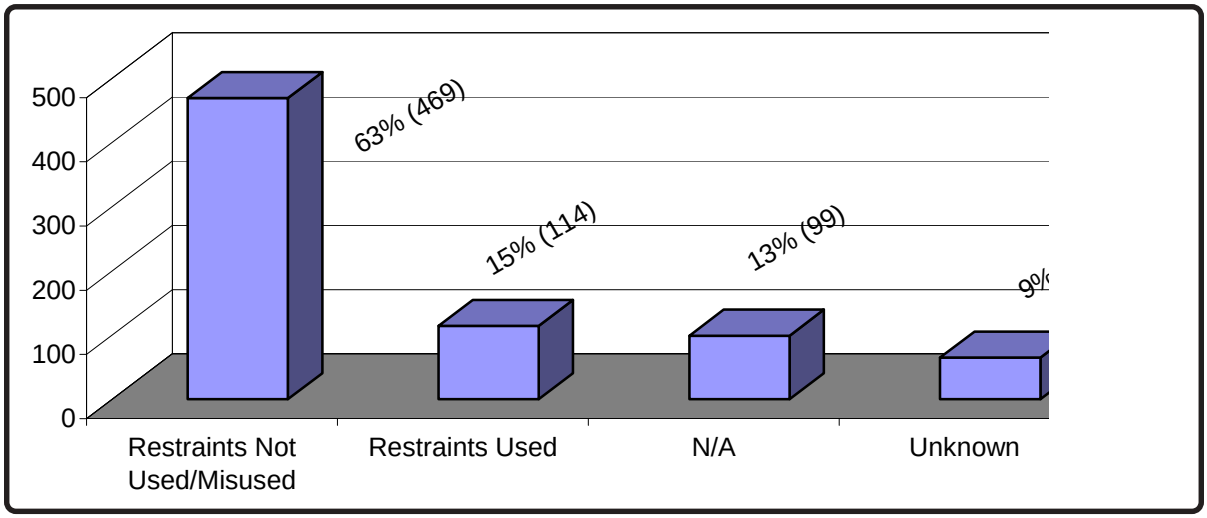
> A 7-year-old female was the left rear-seat passenger in a vehicle driven by her mother. She was initially restrained in a properly installed booster seat, but just prior to the accident, unfastened her carseat restraints. At that time, the vehicle she was in collided with another. She was trapped in the vehicle and pronounced dead at the scene. The mother who was restrained survived.

**MV Deaths by Restraint Use in 2003, N = 67**



# 1. Motor Vehicle Deaths

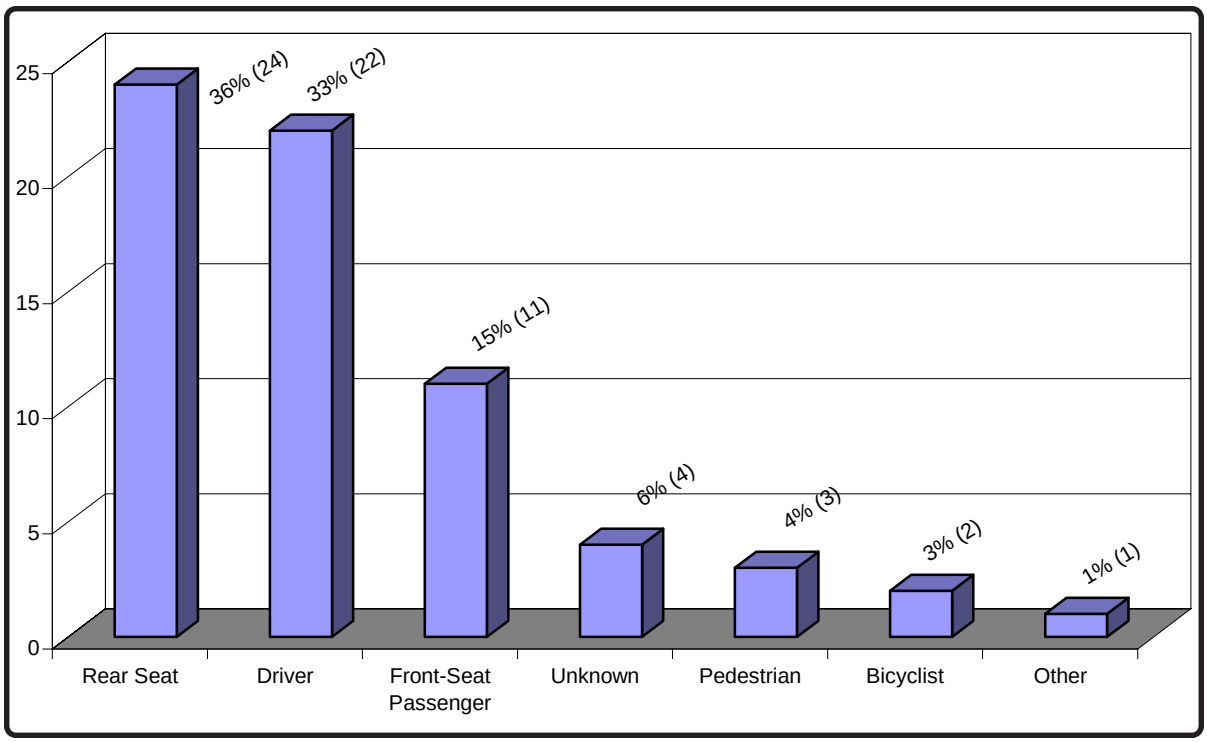
**MV Deaths by Restraint Use, 1994 to 2003, N = 747**




Kansas law does not require a seatbelt to be used in the back seat of a vehicle if an individual is 14 years of age or older. In 2003, rear seat passengers were the largest number of deaths.

A 14 and 15 year old were unrestrained in the rear seat of a car. The car was broad-sided when it crossed an intersection. Both died at the scene. The driver, who was restrained, and front-seat passenger received only minor injuries.

**MV Deaths by Position in 2003, N = 67**



# 1. Motor Vehicle Deaths

In 15% of motor vehicle deaths, alcohol and/or drugs were a contributing factor. **In 7 of the 10 alcohol/drug related deaths, the driver under the influence was 17 years or younger.**

A 17-year-old male lost control of his vehicle, hitting a ravine. The vehicle caught fire and the child died. The driver had a blood alcohol level nearly twice the legal limit.

## PREVENTION POINTS

- **Use of proper safety restraints** - Wear seatbelts. They consistently prevent serious injury and death. According to the National Highway Traffic Safety Administration, parents who buckle up are more likely to use safety restraints for their children than those who do not. The importance of parental seatbelt use as an example cannot be ignored. Children under four years of age should be placed in child safety seats in the backseat of the vehicle. Children between the ages of four and eight should be in belt-positioning booster seats.
- **Attentive driving** - Avoid distractions like cell phones. Young drivers should avoid driving with groups of their peers.
- **Avoiding alcohol or drug use** - It is never safe to drive after using narcotics or alcohol. Children should also avoid getting in a vehicle when they know a driver has been using drugs or alcohol.
- **Driving experience** - Driving is not a quickly learned skill and requires focus and good judgment. Young drivers should be accompanied by an experienced adult and avoid complex driving situations until more experienced. The graduated driver's license system recommended by the Board does not confer full driving privileges until age 18, after significant, supervised driving time.

# 2. Drowning Deaths

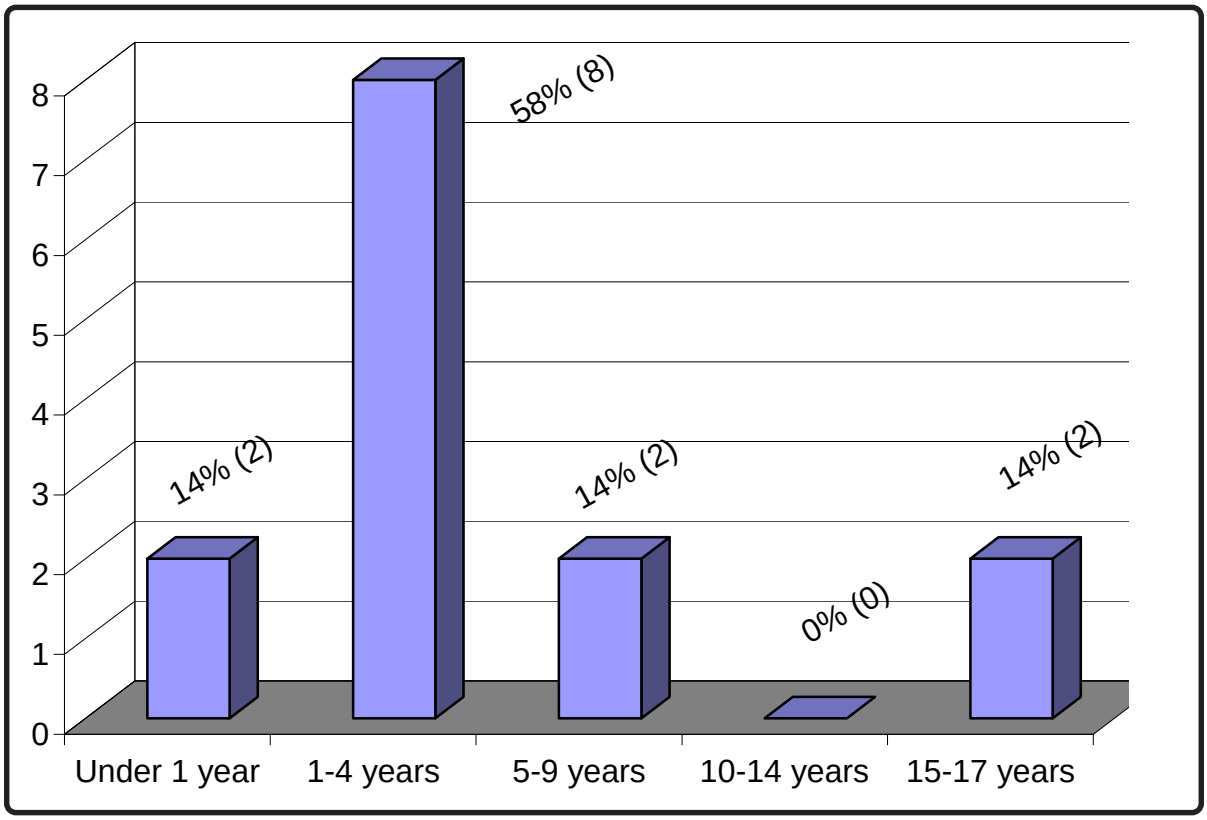
"Drowning, which can happen in as little as one inch of water, is usually quick and silent. A child will lose consciousness within two minutes after submersion, with irreversible brain damage occurring within four to six minutes." (April 2004 National Safe Kids report.) Fourteen Kansas children drowned in 2003. **The Board found that 13 of the 14 incidents were preventable.** In 10 out of 14 cases, children 5 years and younger were unattended when they drowned.

A mother finished mopping the kitchen floor. She left the room, leaving the bucket at the kitchen door. The bucket contained approximately one inch of water and Pine Sol. Her 8-month-old son pulled himself up to the standing position using a nearby chair. While standing he lost his balance falling into the bucket. The mother was alerted by another child. The infant was found unresponsive and later died at a local hospital.

According to the Safe Kids report, drowning is the second-leading cause of injury-related death for children 14 years and younger, yet it was noted that many parents do not consider drowning a major hazard.

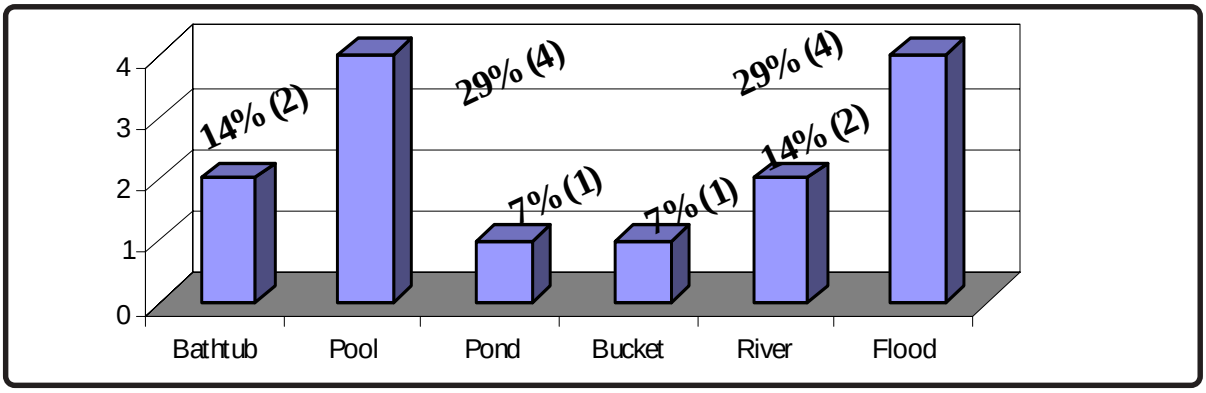
A 15-year-old boy was goose hunting alone while in his boat on the river. He was not wearing any safety flotation device. He drowned when his boat capsized while he was attempting to retrieve a goose.

**Drowning Deaths by Age in 2003, N = 14**



# 2. Drowning Deaths

**Drowning Deaths by Location in 2003, N = 14**




## PREVENTION POINTS

- **Proper Supervision** - There should always be an adult capable of responding to an emergency, observing children around water. The adult should be actively watching and avoid distractions. Assigning swimming "buddies" is also a good idea, especially if there are many swimmers. Supervision also applies to bathtubs, where children are often left alone for short periods of time.
- **Pool/Environment Safety** - Pools should have safety equipment available and be closed off from small children. Five foot fencing, completely encircling a pool or hot tub, with safety latch gates, is recommended. Specifically related to bathtubs, seats designed to hold a baby's head above water are absolutely no substitution for adult supervision. Also, there are cases where small children fall into buckets or toilets and drown. Caregivers should be on the lookout for these less obvious dangers.
- **Use of Safety Equipment** - Children should wear Personal Flotation Devices (PFDs) when participating in water activities. "Water wings" and other inflatable items are not adequate substitutes.
- **Water Safety Education** - Children should have swimming lessons and water safety education. While this is vital, swimming ability alone doesn't relieve the need for adult supervision or PFDs. (The American Academy of Pediatrics recommends waiting until four years of age to begin lessons.)
- **Flood Safety Awareness** - It takes just a few inches of fast flowing water to sweep a full-sized vehicle off of the road. Be aware when a flash flood watch or warning has been issued. Never drive through flood waters.

# 3. Suffocation/Strangulation

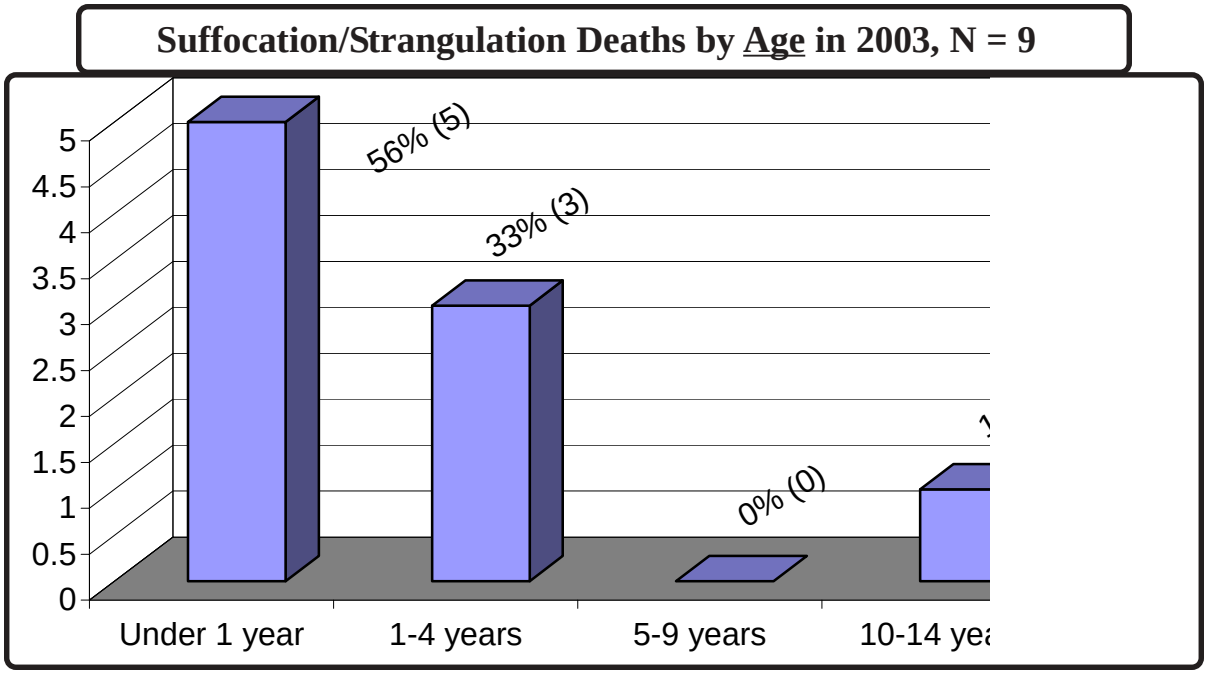
There were nine Suffocation/Strangulation deaths in 2003. Like many of the injury categories, lack of supervision is often a contributing factor in these deaths. **The Board considered all of the nine deaths to be preventable.**

> Mother of two-month-old infant was drinking with two friends. The infant was left lying on the couch. One of the male friends passed out on the couch, on top of the baby. The baby suffocated and was found dead the following morning. Charges of Reckless Homicide have been filed.

Generally, accidental suffocation/strangulation deaths affect very young children. They have not yet developed the strength or motor skills to remove themselves from dangerous situations. However, there are occasions where older children are trapped. Alapse of supervision can lead to death.

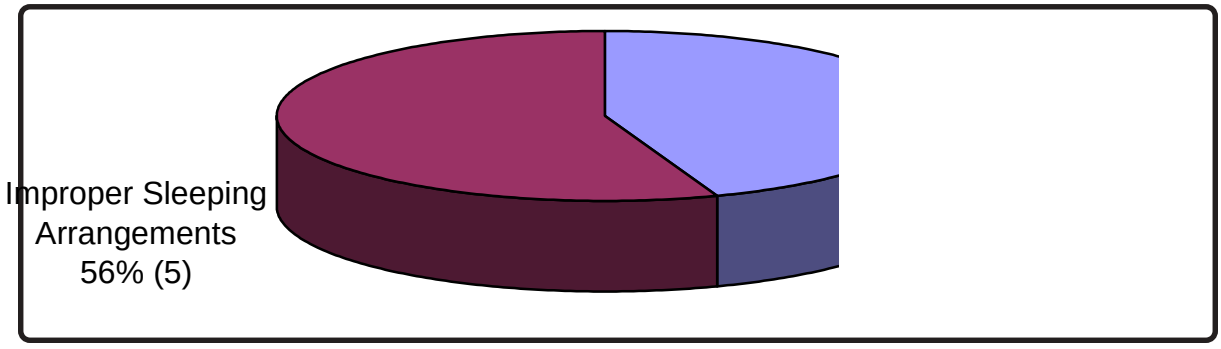
> An 8-month-old was placed on her abdomen in an adult bed for a nap. A comforter was placed on the floor in case the infant were to roll off. The infant rolled off of the bed onto the comforter and was found later, unresponsive, trapped with a comforter between the bed and the wall. The infant was taken to a nearby hospital and pronounced dead of positional asphyxia.

Another issue that falls within this category is improper sleeping arrangements for babies. Reviews from Kansas and across the nation show that there are several common practices that increase the risk for asphyxial deaths. These include: sleeping somewhere other than a crib, being placed on abdomen, sleeping in a cluttered sleep area, being placed on soft surfaces such as pillows or quilts, or co-sleeping with parents or siblings.



# 3. Suffocation/Strangulation

**Suffocation/Strangulation Deaths by Cause in 2003, N = 9**




A soft quilt was placed over the surface of a playpen to make an improvised crib for a baby. There was a slight depression in one corner of the quilt. The child ended up facedown in the depression which resulted in a case of positional asphyxia. Use of a proper sleeping surface could have prevented this death.

## PREVENTION POINTS

- **Proper Supervision** - Young children should be watched carefully. Leaving them alone for extended periods of time, or even 10 to 15 minutes allows opportunities for accidents. Child-specific training in CPR and other emergency responses can help prevent death.
- **Environment Safety** - Be on the look out for dangers to your child. Think about their size, curiosity and motor ability. Many things that aren't threats to adults (e.g. chests or coolers with latches, cords and plastic bags) can be deadly to small children.
- **Infant Sleeping Arrangements** - The safest sleeping place for your infant is in an approved crib, on his or her back. The mattress should be fitted to the crib so that the child cannot be trapped between the mattress and side of the crib. Soft items like blankets, pillows and stuffed animals provide opportunities for asphyxia. Babies should not sleep in adult beds and should not be placed in bed with parents or siblings.

*The Board has received notices that power window rocker switches have caused child deaths across the country. New regulations from the National Highway Traffic Safety Administration are requiring design changes to lessen this risk in all cars manufactured after October 1, 2008.

# 4. Fire Deaths

Five children died in fires in 2003. **Review showed all five fire deaths to be preventable.** The five deaths were the result of two fires. In one of the fires it is not known if a smoke detector was present at all. In the second fire, a smoke detector was present but it is not know if it was in working condition.

A mother and three of her 4 children died when their home caught fire. They died from smoke and burn injuries. The exact cause of the fire was not determined but a surviving daughter claims she had noticed an electrical burning smell earlier. It is not known if a working smoke detector was in the home. The home was completely destroyed.

A three-year-old male child and his 9 month-old sister died in a house fire which also took the lives of their parents. All evidence indicates that the fire was caused by a leak in the gas line to a heating stove. The three-year-old became entagled in plastic hanger sitting at the bottom of the staircase succombing to smoke inhalation and fire. A smoke detector was on the first floor but it is unclear it if was in working condition. No smoke detector was on the second floor.

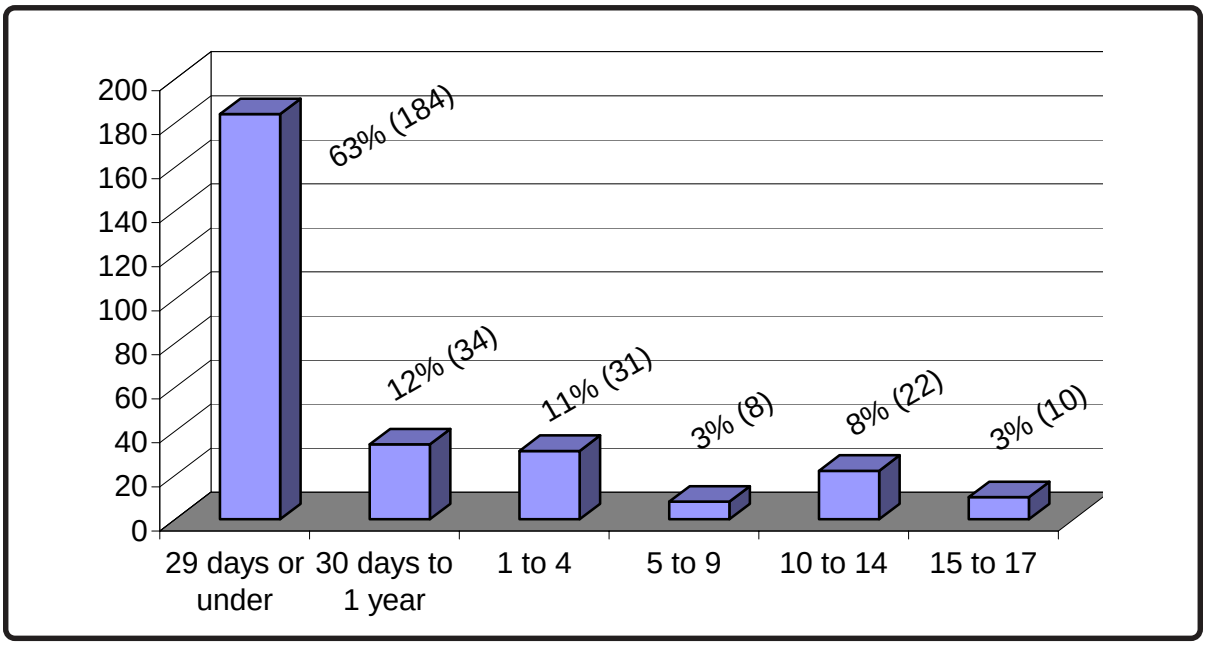
## PREVENTION POINTS

- **Proper Supervision** - Young children must be watched carefully. Leaving them unsupervised, especially if there are objects around like candles or matches, risks a serious accident.
- **Prevent Access to Fire-starting Material** - Matches, lighters, candles, etc. should be kept away from children. Don't assume a young child can't operate a lighter or matches. Two of the four fatal fires in 2002 may have been started by 3-year-olds with lighters.
- **Make Sure You Have Working Smoke Detectors** - Smoke detectors should be tested once a month to ensure the battery is not dead and that the detector itself is working.
- **Have an Emergency Fire Plan** - Make sure everyone in the house, especially the children, knows all exits from the house in case of a fire.

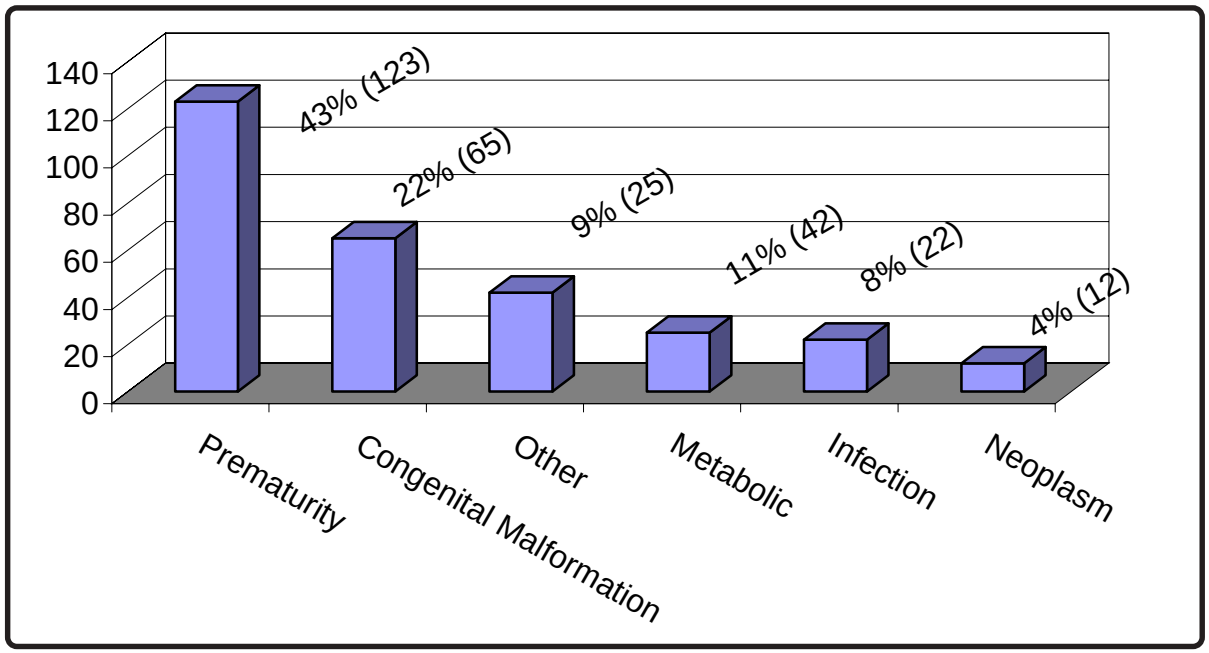
# C. Natural Death-Except SIDS

Natural deaths are the largest category of child deaths in Kansas. In 2003 they made up 62% of the total 470 cases. Unlike other categories, prevention efforts are harder to define. In fact, the Board did not find a single Natural case to be preventable in 2003. Natural deaths are prevalent in the first 29 days of life correlating with prematurity and congenital disorders being found during that age range.

**Natural Deaths-Except SIDS by Age, in 2003 N = 289**



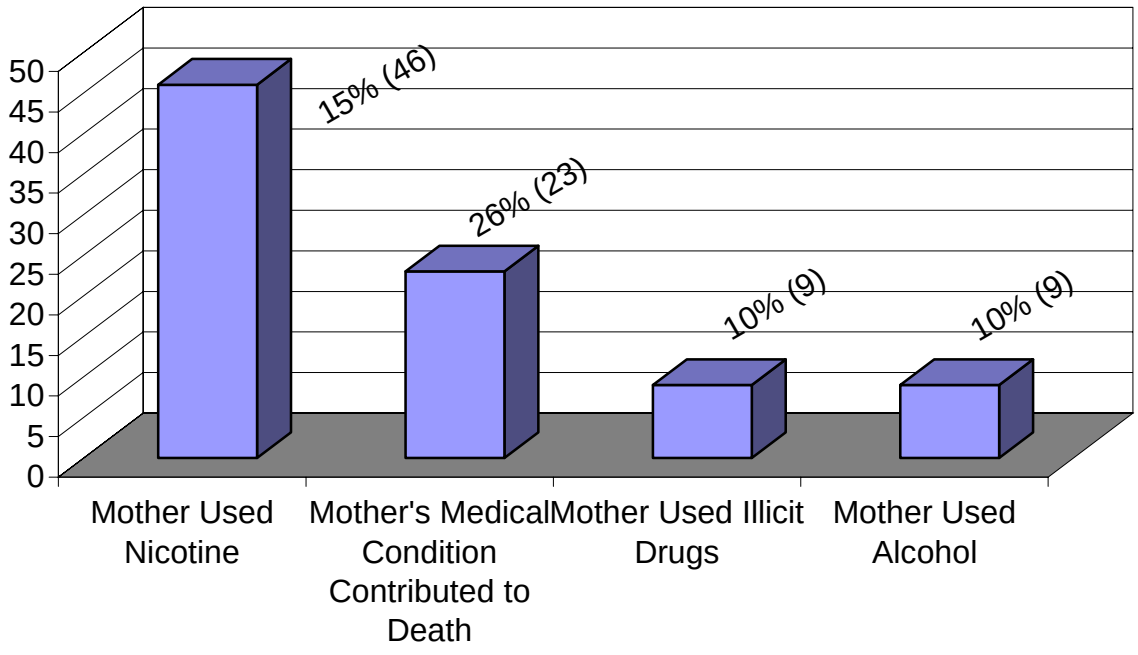

**Natural Deaths-Except SIDS by Cause in 2003, N = 289**



# C. Natural Death-Except SIDS

While the degree to which prematurity can be prevented is unknown, there are risk factors for prematurity are poor health that can be addressed. The graph below shows the instances where mothers used substances that might have had a negative impact on the health of their babiess. In 23 cases, the board considered the mother's medical condition a factor in the child's death. In 118 cases, it was unknown if the mother's condition contributed to the death and in 52 cases, it was unknown if the mother used nicotine, drugs or alcohol.

**Natural Deaths-Except SIDS by Risk Factor in 2003, N 289**



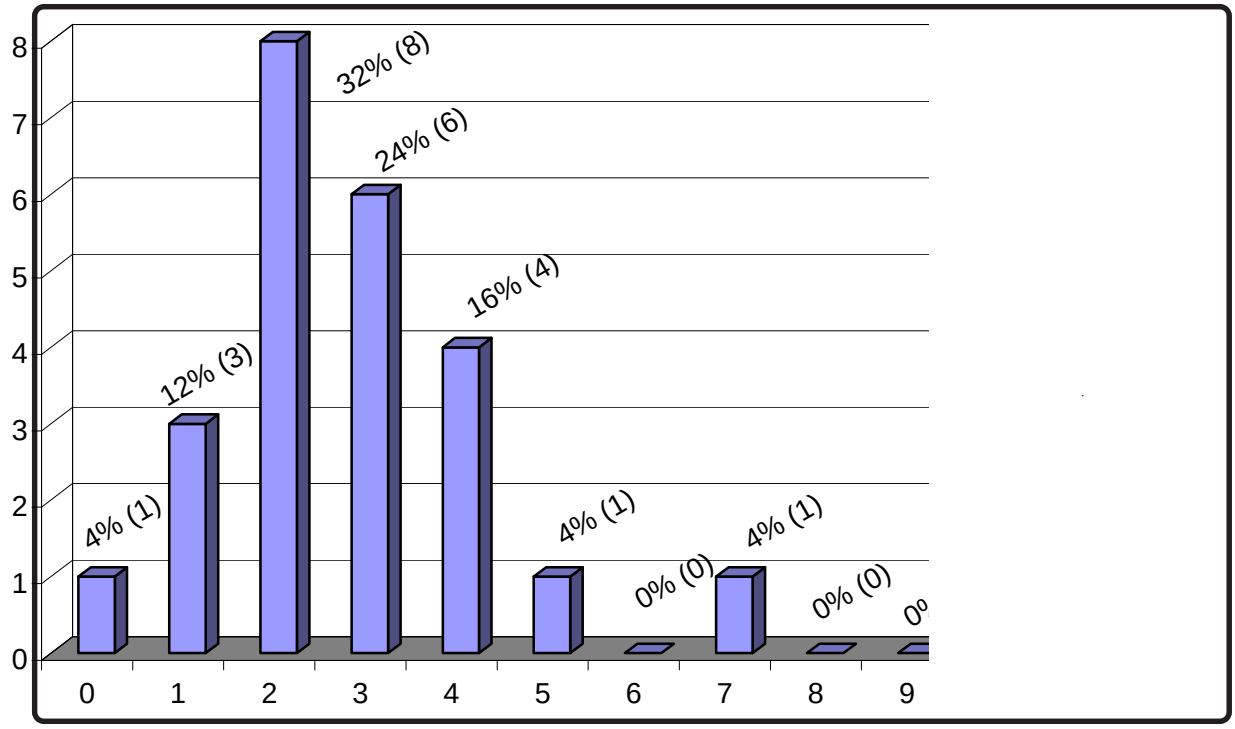

## PREVENTION POINTS

- **Utilize Prenatal Care** - Medical Care during a pregnancy is invaluable. Risk factors and problems are addressed early can be avoided or treated to minimize poor outcomes.
- **Avoid Drugs, Alcohol and Nicotine** - Use of drugs, alcohol or nicotine should be avoided while pregnant. These elements all have the ability to cause serious health issues and even death for newborns and infants.

# D. Natural - SIDS

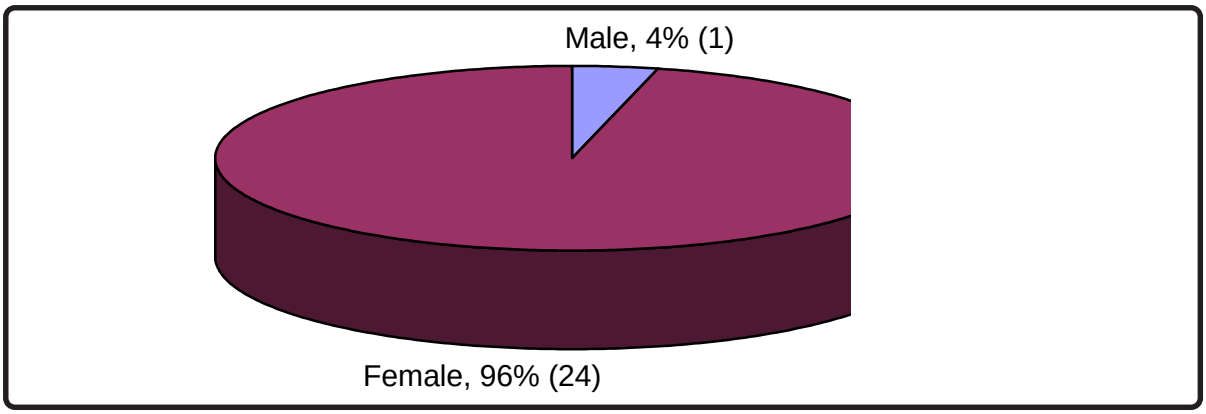
Sudden Infant Death Syndrome (SIDS) is a very narrow classification of death specifically addressing infants. In Kansas, a coroner can only rule SIDS if the child is under one year of age, and an investigation and autopsy have revealed no known cause of death. Since the cause of SIDS in unknown, by definition, these deaths would not be preventable. However, risk factors are known and are being monitored in the data collection. he majority (98%) of SIDS deaths in 2003 occurred in the first six months of life, which is consistent with national findings.

**Natural Deaths-SIDS by Age in Months in 2003, N = 25**




In 2003 the vast majority (96%) of SIDS deaths occured in females.

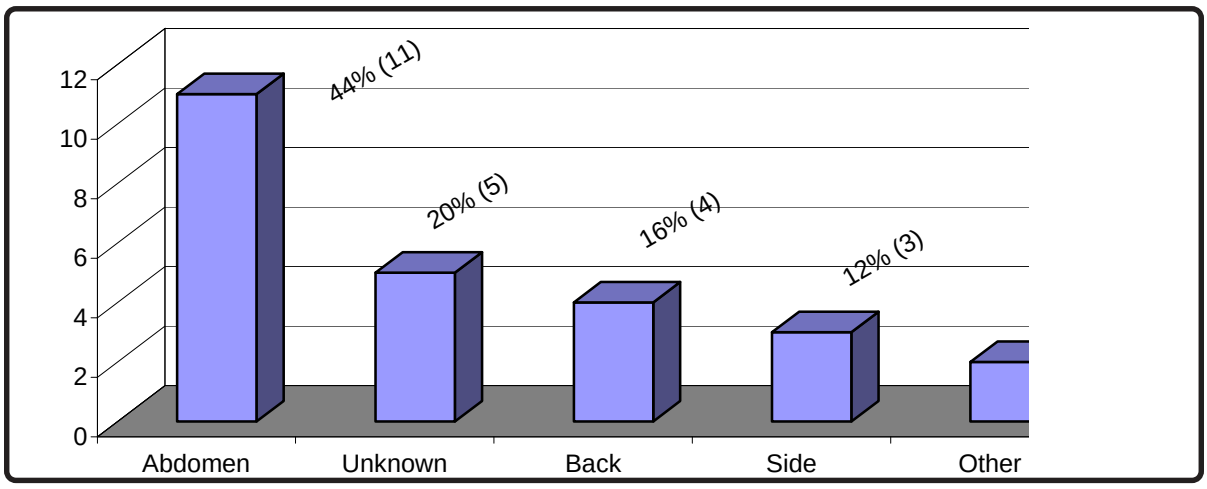
**Natural Deaths-SIDS by Gender in 2003, N = 25**



# D. Natural - SIDS

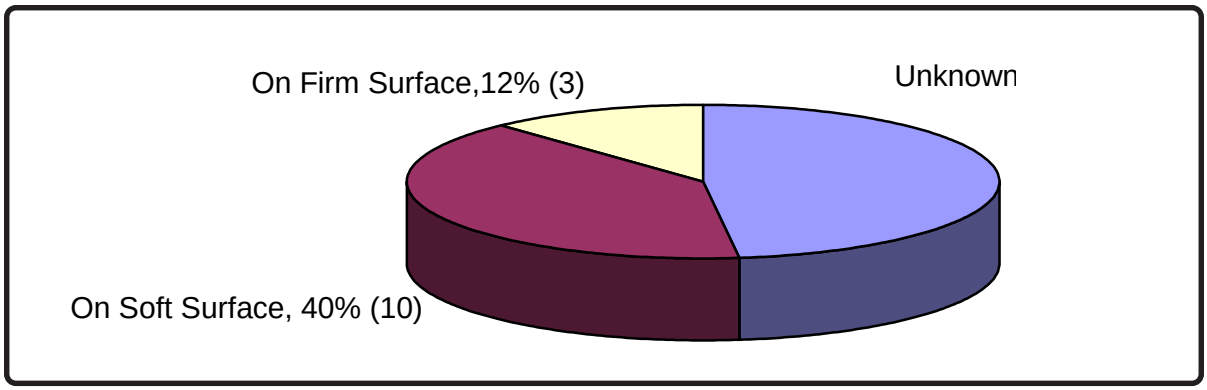
SIDS by definition has no known cause. There is, however, some correlation with certain risk factors. As the graph below shows, SIDS can occur when babies sleep on their backs. However, according to the American Academy of Pediatrics, the chances for SIDS can be five times greater for children who are placed on their stomachs for sleeping. High temperatures (overheating, over bundling), improper sleeping environment (co-sleeping, excess bedding, pillows, stuffed animals, etc.) and second-hand smoke can also increase the risk of SIDS. Other risk factors include low birth weight, prematurity, maternal smoking during pregnancy, multiple births (twins, etc.), young maternal age and births less than 18 months apart.

**Natural Deaths-SIDS by Baby's Position in 2003, N = 25**




Placing babies to sleep on firm surfaces, in approved cribs, reduces both the risk of SIDS and of accidental suffocation.

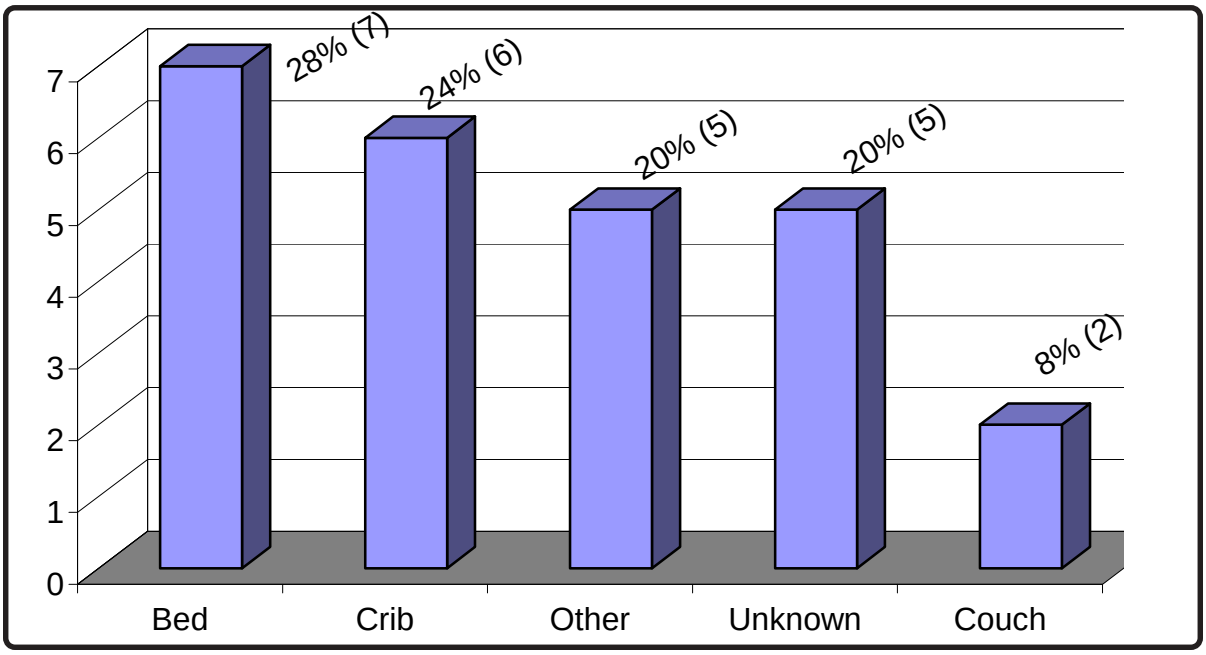
**Natural Deaths-SIDS by Sleeping Surface in 2003, N = 25**



# D. Natural - SIDS

Placing babies in approved cribs helps eliminate risks associated with SIDS, such as sleeping on soft surfaces and heavy, soft bedding.

**Natural Deaths-SIDS by Sleeping Area in 2003, N = 25**




## PREVENTION POINTS

• **Infant Sleeping Arrangements** - The prevention suggestions for SIDS are very similar to the ones for accidental suffocation.

-The safest sleeping space for an infant is in an approved crib, on his or her back.

-The mattress should be fitted to the crib so that the child cannot be trapped between the mattress and side of the crib.

-Soft items like blankets, pillows and stuffed animals should be removed from the crib.

-Babies should not sleep in adult beds and should not be placed in bed with parents or siblings.

-Babies should not be over bundled or their rooms overheated.

# E. Undetermined

There were 17 Undetermined deaths in 2003. These deaths cover a broad spectrum of investigative thoroughness. In some cases, every effort was made to determine why a death occurred, but there was simply no way to be sure what actually happened. In other cases, investigations were cursory, or law enforcement was never informed of the death. In some instances, autopsies were not performed, or toxicology reports on the victim were not requested.

This issue is important enough that the SCDRB has once again made a call for thorough investigations in its policy recommendations on page 36.

## PREVENTION POINTS

- **Thorough Investigation** - All non-natural child deaths should be exhaustively investigated. The circumstances and family situation should not affect the detail of the inquiry. Also, the Board has found instances where law enforcement was not informed because the child died in the hospital. Hospitals should have protocols in place to ensure law enforcement is notified when a child dies from other than natural causes.

- **Complete Autopsies** - Combined with excellent law enforcement investigations, complete autopsies often provide a better understanding of child deaths. However, there are situations in which an autopsy should have been performed and was not, or the autopsy did not include all aspects of forensic investigation such as full-body X-rays, cultures, metabolic and toxicologic studies. Coroners should be aware of an excellent program through the Department of Health & Environment that allows the state to reimburse counties for child death autopsies.

# IV. Public Policy Recommendations

The Child Death Review Board has chosen to provide policy recommendations in areas that could significantly affect child deaths in Kansas. The information gathered and analyzed by the Board provides compelling support for the recommendations made below.

> Between 1994 and 2003, **747** Kansas children under 18 died in motor vehicle crashes. In **469** of the incidents, **proper restraints were not used** by the children that died.

## ENHANCE CHILD MOTOR VEHICLE RESTRAINT LAWS

The number one policy priority of the Board is to create more effective laws for child restraint in vehicles. More than any other area, motor vehicle deaths are consistently shown to be realistically preventable. A significant portion of that preventability comes with the proper use of safety restraints. **In 2002, the National Highway Traffic Safety Administration estimated total seatbelt use in Kansas at 61%, compared to a national rate of 75%.** The Board has three specific recommendations to address this serious problem. These recommendations match legislation put forward by the Kansas SAFE Kids Coalition during the 2005 legislative session. Which was not approved.

- **Passage of legislation requiring use of Belt Positioning Booster Seats for children ages 4 through 8**
  - Current law has no provision for booster seats
- **Expansion of the current law to require all children under the age of 18 to be properly restrained regardless of seating position within the vehicle**
  - Current law only requires this for children 13 and under
- **Increase the fines for non-compliance with child safety restraint laws to a level that effectively promotes proper use of safety restraints.**
  - Current law requires a mere $20 fine for violation of child safety restraint laws and a $10 fine for violation of the front-passenger/any age seatbelt law

## BOOSTER SEATS

Many parents hold the misconception that their child is ready for adult safety restraints after age 3. Age 4 is the year in which the requirement for child safety seat use is lifted in Kansas. As of April 2004, 26 states have passed laws requiring the use of booster seats in recognition of data showing the need for a transition period between child seats and adult seatbelts.[1] Booster seats provide proper seatbelt positioning for children between the ages of 4 and 8 or those who weigh under eighty pounds and are less than four feet nine inches tall. A report in the June 2003 Journal of the American Medical Association stated that **use of seatbelt positioning booster seats reduced the risk of injury to children ages 4 through 7 by 59%.** This was in comparison to children who wore only vehicle seatbelts.[2] Passage of legislation requiring booster seat use would close a significant gap in the laws that protect Kansas children as they travel in vehicles.

# IV. Public Policy Recommendations

## INCREASE AGE OF MANDATORY, ANY-POSITION SEATBELT USE

Since its inception, the State Child Death Review Board has consistently found a lack of safety restraint use in the majority of vehicular deaths, with 15 through 17 year-olds representing the largest group of these deaths. However, Kansas law does not require children 14 and older to use a seatbelt if seated in the back of a vehicle. **In over a third (36%) of the deaths in 2003, the child was in the rear-seat of the vehicle.** A simple expansion of the current law would enhance the safety of Kansas children.

## INCREASE FINES FOR NON-COMPLIANCE WITH CHILD SAFETY RESTRAINT LAWS

Vehicular accidents take the lives of many Kansas children every year. **67 children died in crashes in 2003.** National data showed 1,563 deaths and 227,000 injuries for children 0 to 14 in 2002. 50% of those killed were completely unrestrained.[3] **61% of the children killed in Kansas were unrestrained.** Unlike some of the causes the Board sees in its review process, there is a simple, effective way to decrease these deaths. The Board earnestly supports strong enforcement of child safety restraint laws. The penalty for failing to follow age-appropriate restraint use should be more meaningful than the current $20 fine.

## INSTITUTE GRADUATED DRIVERS LICENSE LAW

The early years of learning to drive are often the most dangerous. According to the National Center of Health Statistics, 36% of deaths for 15 through 20 year-olds are caused by motor vehicle crashes. **In Kansas in 2003, 57% of deaths for 15 to 17 year olds were caused by car crashes. In 33% of the 67 total deaths, the child was driving.** Graduated licensing laws allow adolescents to become more proficient and experienced in their driving before having full driving privileges. A U.S. Department of Transportation report lists 38 states that have instituted a graduated licensing system. Kansas is not among them.[4]

An effective graduated licensing system requires a learning permit at age sixteen. At least six months and 30 to 50 hours of supervised driving would be required before moving to the intermediate stage. At this level there would be restrictions on night driving and the transportation of teenage passengers. States with night-time restrictions have shown crash reductions of up to 60%.[5] There would be zero tolerance for drugs or alcohol use during this process. Finally, full driving privileges would be granted at age 18. The Board encourages using this sensible law to let Kansas children more safely exercise the privilege of driving.

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*The State Child Death Review Board would like to express its gratitude to the legislators who supported efforts to increase the safety of Kansas children during the 2005 Session. House Bill 2109 was introduced and would have implemented the Board's first recommendation to increase the effectiveness of Kansas child safety restraint laws. The bill failed on the House floor. The CDRB will continue to pursue these very important public policy recommendations.*

# IV. Public Policy Recommendations

## COMPREHENSIVE AND THOROUGH INVESTIGATION OF CHILD DEATHS

According to Dr. Erik Mitchell, District Coroner and Board member, "Thorough investigation of child deaths is a mandate of the State Child Death Review Board. Such an investigation should include more than the cause of death and manner of death. An understanding of the mechanisms of death is of critical importance if we are to develop strategies for the prevention of future deaths. For example, in a single car crash the investigation should include sufficient examination of the vehicle and environment to exclude or to describe mechanical and physical factors that caused or increased the probability of the crash. Also, the examination should include investigation of potential medical factors- toxicology and previously undiagnosed physical infirmities or illnesses- that could play a role in causing the crash. While a single car crash looks deceptively simple on superficial examination, there can be factors that affect the crash, or the outcome of injuries, where only a detailed examination of the event and of the decedent will permit a complete understanding of how and why this death occurred."

"The State Child Death Review Board has long recognized the limitations of resources that inhibit the extent of death investigations. Consequently, in 2002, the SCDRB sought and obtained a change in statute. Counties can now obtain a refund of reasonable expenses of child autopsies from the District Coroner Fund in cases that fall under guidelines set by the SCDRB. In other words, if an autopsy is performed for a child where there is reason to believe that non-natural mechanisms are at play (accident, suicide, homicide) the County can request and receive reimbursement for reasonable autopsy costs from the District Coroner's Fund. It is hoped that the availability of funds will encourage the inclusion of autopsies in all potentially non-natural child deaths."

The State Child Death Review Board would be incapable of performing its function without the dedicated efforts of law enforcement officers and county and district coroners. While the investigation of child deaths is a difficult task, only thorough examinations of these incidents allow the Board to gather accurate information. Without that foundation, the Board cannot make recommendations for ways to prevent the deaths of Kansas children.

**Endnotes**

[1] "CLOSING THE GAP between current science and public policy." CPS Issue Report. 13 July 2004 <http://www.chop.edu/traumalink/download/2004/pcps_cpsreport.pdf>.
[2] "Booster Seats: Easy to Use and Effective" CPS Issue Report. 13 July 2004 <http://www.chop.edu/traumalink/download/2004/pcps_cpsreport.pdf>.
[3] Child Passenger Safety: Fact Sheet. CDC. <http://www.cdc.gov/ncipc/factsheets/childpas.htm>.
[4] United States. National Highway Traffic Safety Administration. Traffic Safety Facts. Apr. 2004.
[5] Ibid

# V. Appendix

## METHODOLOGY

**Kansas Child Death Review Board 2003 Data**

Each month, the KDHE Vital Statistics Office provides the SCDRB with a listing of children whose deaths have been reported in Kansas for the previous month. The SCDRB reviews the deaths of all children (birth through 17 years of age) who are residents of Kansas and die in Kansas, children who are residents of Kansas and die in another state, and nonresident children who die in Kansas. Attached to the listing is a death certificate for each child and a birth certificate, if available.

The SCDRB's executive director must receive a Coroner Report Form before a case can be opened for investigation. The death certificate and coroner's report contain the information necessary to begin a case review. These documents serve as a double-check system to ensure that each child death in Kansas is being reviewed.

Once a case is opened, the death and birth certificates, the coroner's report, and the report of death are assessed to identify additional information necessary for a comprehensive review. Any additional information that is needed is then requested from the appropriate agency. Additional information may consist of autopsy reports, law enforcement reports, medical records, SRS records, and records from the State Fire Marshal. In some cases, it is necessary to obtain mental health, school, and other protected records. All information obtained by the SCDRB is confidential.

After all records have been collected, cases are assigned to board members for initial review and assessment. Each member reviews his or her assigned cases and enters case information into an on-line database. The on-line database provides a relatively easy way to maintain information. However, transfers of information between outdated software to the new system in 2000 have created the possibility for slight numbers adjustments when looking at past years.

During the SCDRB's monthly meetings, members present their cases orally, and circumstances leading to the deaths are discussed. If additional records are needed, or specific questions are raised, a case may be continued to the next meeting. Otherwise, upon full agreement of the cause and manner of death, cases are closed. In some instances the SCDRB may determine that it is appropriate to refer a case back to the county or district attorney in the county where the death occurred with a recommendation that a follow-up investigation be done based on the SCDRB's findings.

Any questions about this report or about the work of the SCDRB should be directed to the Executive Director, at (785) 296-2215.

# V. Appendix

## GOALS & HISTORY

The SCDRB has developed the following three goals to direct its work:

1) To describe trends and patterns of child deaths (birth through 17 years of age) in Kansas and to identify risk factors in the population.

2) To improve sources of data and communication among agencies so that recommendations can be made regarding recording of the actual cause of death, investigation of suspicious deaths, and system responses to child deaths. This interagency communication should occur at the individual case level and at the local and state levels.

3) To develop prevention strategies including community education and mobilization, professional training, and needed changes in legislation, public policy, and/or agency practices.

The SCDRB was created by the 1992 Kansas Legislature and is administered by the Office of the Kansas Attorney General. SCDRB membership is appointed according to K.S.A. 22a-241 et. seq. Membership includes: one member each from the Office of the Attorney General, the Kansas Bureau of Investigation (KBI), the Department of Social and Rehabilitation Services (SRS), the Kansas Department of Health and Environment (KDHE), and the Department of Education; three members appointed by the Board of Healing Arts: a district coroner, a pathologist, and a pediatrician; one representative of a child advocacy group appointed by the Attorney General; and one county or district attorney appointed by the Kansas County and District Attorneys Association. No term limit is set on appointments. In 1994, the Legislature amended the statute to enable the SCDRB to appoint an executive director.

This multi-agency, multi-disciplinary volunteer board meets monthly, with no travel or expense reimbursement, to examine circumstances surrounding the deaths of Kansas children (birth through 17 years of age). Members bring a wide variety of experience and perspective on children's health, safety, and maltreatment issues. Because of this combination of expertise, the effectiveness of intervention and prevention is greatly increased.

With assistance from law enforcement agencies, county and district attorneys, SRS, KDHE, physicians, coroners, and other medical professionals, the SCDRB is given the comprehensive information needed to thoroughly examine circumstances which lead to the deaths of children. By understanding how children are dying, the SCDRB is able to propose ways of reducing the number of preventable deaths.

When the SCDRB began its work, data was compiled on a fiscal year (July 1993 - June 1994) basis. In 1997 the SCDRB changed its review to a calendar year format, beginning with the 1995 study year, to bring its data into conformity with fatality review boards in other states so that future trends and patterns can be compared.

# V. Appendix

## Child Deaths By County of Residence, 2003

| County | Total Population | Total Deaths | Natural-Except SIDS | Unintentional Injury-MVA | Unintentional Injury | Natural-SIDS | Undeter-mined | Homicide | Suicide |
|---|---|---|---|---|---|---|---|---|---|
| Allen | 3,427 | 1 | | | | | | | 1 |
| Anderson | 2,058 | 1 | | 1 | | | | | |
| Atchison | 4,216 | 2 | 1 | | 1 | | | | |
| Barber | 1,151 | 2 | | 2 | | | | | |
| Barton | 6,929 | 3 | 2 | 1 | | | | | |
| Bourbon | 3,668 | 2 | 2 | | | | | | |
| Brown | 2,635 | 2 | 2 | | | | | | |
| Butler | 16,364 | 8 | 3 | | 3 | 1 | | 1 | |
| Chase | 645 | 0 | | | | | | | |
| Chautauqua | 912 | 0 | | | | | | | |
| Cherokee | 5,496 | 2 | 1 | | 1 | | | | |
| Cheyenne | 702 | 2 | 1 | 1 | | | | | |
| Clark | 568 | 0 | | | | | | | |
| Clay | 2,032 | 2 | 2 | | | | | | |
| Cloud | 2,099 | 3 | 1 | 2 | | | | | |
| Coffey | 2,251 | 0 | | | | | | | |
| Comanche | 453 | 0 | | | | | | | |
| Cowley | 9,109 | 6 | 5 | | | 1 | | | |
| Crawford | 8,548 | 5 | 4 | 1 | | | | | |
| Decatur | 739 | 0 | | | | | | | |
| Dickinson | 4,660 | 3 | 1 | 1 | 1 | | | | |
| Doniphan | 1,956 | 1 | | | 1 | | | | |
| Douglas | 20,437 | 13 | 9 | | 1 | 1 | 1 | | 1 |
| Edwards | 795 | 0 | | | | | | | |
| Elk | 664 | 0 | | | | | | | |
| Ellis | 5,730 | 4 | 3 | 1 | | | | | |
| Ellsworth | 1,243 | 1 | | 1 | | | | | |
| Finney | 13,309 | 9 | 3 | 4 | | 1 | 1 | | |
| Ford | 9,903 | 11 | 5 | 2 | 2 | | 1 | 1 | |
| Franklin | 6,728 | 3 | 1 | 1 | | 1 | | | |
| Geary | 7,900 | 6 | 3 | | | 1 | 1 | 1 | |
| Gove | 747 | 0 | | | | | | | |
| Graham | 568 | 1 | | | | 1 | | | |
| Grant | 2,441 | 0 | | | | | | | |
| Gray | 1,773 | 2 | 1 | 1 | | | | | |
| Greeley | 376 | 0 | | | | | | | |
| Greenwood | 1,720 | 3 | 1 | | 1 | | 1 | | |
| Hamilton | 721 | 0 | | | | | | | |
| Harper | 1,455 | 0 | | | | | | | |
| Harvey | 8,338 | 4 | 2 | 2 | | | | | |
| Haskell | 1,331 | 0 | | | | | | | |
| Hodgeman | 553 | 1 | 1 | | | | | | |
| Jackson | 3,372 | 0 | | | | | | | |
| Jefferson | 4,768 | 1 | 1 | | | | | | |
| Jewell | 689 | 0 | | | | | | | |

# V. Appendix

Child Deaths by County of Residence, Continued

| County | Total Population | Total Deaths | Natural-Except SIDS | Unintentional Injury-MVA | Unintentional Injury | Natural-SIDS | Undetermined | Homicide | Suicide |
|---|---|---|---|---|---|---|---|---|---|
| Johnson | 124,728 | 47 | 34 | 3 | 3 | 1 | 2 | 3 | 1 |
| Kearny | 1,455 | 1 | 1 | | | | | | |
| Kingman | 2,210 | 1 | | 1 | | | | | |
| Kiowa | 693 | 0 | | | | | | | |
| Labette | 5,465 | 3 | 2 | | 1 | | | | |
| Lane | 467 | 1 | 1 | | | | | | |
| Leavenworth | 17,994 | 12 | 10 | 1 | | | 1 | | |
| Lincoln | 763 | 2 | 1 | 1 | | | | | |
| Linn | 2,306 | 6 | | 4 | 2 | | | | |
| Logan | 736 | 0 | | | | | | | |
| Lyon | 8,934 | 6 | 2 | 2 | | | 1 | | 1 |
| Marion | 3,110 | 5 | 2 | 3 | | | | | |
| Marshall | 2,414 | 2 | | 1 | | 1 | | | |
| McPherson | 6,982 | 5 | 3 | 1 | | 1 | | | |
| Meade | 1,295 | 0 | | | | | | | |
| Miami | 7,647 | 4 | 1 | 1 | | | | | 2 |
| Mitchell | 1,533 | 0 | | | | | | | |
| Montgomery | 8,582 | 9 | 6 | | 1 | 1 | 1 | | |
| Morris | 1,436 | 1 | | | 1 | | | | |
| Morton | 938 | 2 | 2 | | | | | | |
| Nemaha | 2,831 | 1 | 1 | | | | | | |
| Neosho | 4,051 | 3 | 2 | 1 | | | | | |
| Ness | 702 | 1 | | | 1 | | | | |
| Norton | 1,270 | 0 | | | | | | | |
| Osage | 4,282 | 1 | | | | 1 | | | |
| Osborne | 937 | 0 | | | | | | | |
| Ottawa | 1,530 | 0 | | | | | | | |
| Pawnee | 1,641 | 1 | 1 | | | | | | |
| Phillips | 1,420 | 0 | | | | | | | |
| Pottawatomie | 5,189 | 4 | 3 | | | 1 | | | |
| Pratt | 2,153 | 3 | 3 | | | | | | |
| Rawlins | 610 | 0 | | | | | | | |
| Reno | 14,924 | 7 | 6 | 1 | | | | | |
| Republic | 1,157 | 0 | | | | | | | |
| Rice | 2,421 | 0 | | | | | | | |
| Riley | 11,574 | 5 | 4 | | | 1 | | | |
| Rooks | 1,243 | 0 | | | | | | | |
| Rush | 755 | 1 | | 1 | | | | | |
| Russell | 1,459 | 1 | 1 | | | | | | |
| Saline | 13,737 | 13 | 8 | 1 | 2 | 1 | | | 1 |
| Scott | 1,245 | 2 | 2 | | | | | | |
| Sedgwick | 127,989 | 120 | 86 | 10 | 12 | 4 | 3 | 2 | 3 |
| Seward | 7,254 | 9 | 6 | 2 | | | 1 | | |
| Shawnee | 42,374 | 16 | 10 | | 1 | 2 | 1 | 2 | |
| Sheridan | 639 | 0 | | | | | | | |

# V. Appendix

Child Deaths by County of Residence, Continued

| County | Total Population | Total Deaths | Natural-Except SIDS | Unintentional Injury-MVA | Unintentional Injury | Natural-SIDS | Undeter-mined | Homicide | Suicide |
|---|---|---|---|---|---|---|---|---|---|
| Sherman | 1,500 | 1 | | | | | 1 | | |
| Smith | 867 | 1 | | 1 | | | | | |
| Stafford | 1,147 | 1 | | | 1 | | | | |
| Stanton | 689 | 2 | 1 | 1 | | | | | |
| Stevens | 1,541 | 0 | | | | | | | |
| Sumner | 6,916 | 2 | 1 | | 1 | | | | |
| Thomas | 1,994 | 0 | | | | | | | |
| Trego | 700 | 0 | | | | | | | |
| Wabaunsee | 1,649 | 0 | | | | | | | |
| Wallace | 436 | 0 | | | | | | | |
| Washington | 1,409 | 0 | | | | | | | |
| Wichita | 659 | 1 | 1 | | | | | | |
| Wilson | 2,489 | 2 | | 1 | 1 | | | | |
| Woodson | 713 | 0 | | | | | | | |
| Wyandotte | 44,556 | 38 | 21 | 4 | 7 | 2 | 2 | 2 | |
| | | | | | | | | | |
| **Total** | **696,519** | **447** | **277** | **62** | **45** | **24** | **17** | **12** | **10** |
| | | | | | | | | | |
| *Out of State* | | *23* | *12* | *5* | *4* | | | *1* | *1* |
| ***Total*** | | ***470*** | ***289*** | ***67*** | ***49*** | ***24*** | ***17*** | ***13*** | ***11*** |

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# V. Appendix

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